C3460-1

# FIBER ORGANON

*Formerly Textile Organon*

Volume 61, No. 8 ☐ August 1990

A publication of *Fiber Economics Bureau, Inc.*

## Highlights

- Worldwide Weaving Machinery In Place ...begins on page 187.
- Quarterly Manufactured Fiber Data ...see pages 198 - 199.

**SHIPMENTS:**

In July, total manufactured fiber shipments reached 674 million pounds, 6% below the 714 million pounds shipped in June and 4% below the 701 million pounds shipped in July 1989.

July shipments of synthetic (noncellulosic) filament yarn fell 5% to 331 million pounds and staple+tow fell 8% to 299 milion pounds.

Contributing to the decrease in shipments over the previous month were olefin staple down 15% or 6 million pounds, acrylic+modacrylic staple down 12% or 5 million pounds and nylon industrial yarn down 3 million pounds or 10%.

Year-to-date domestic shipments of manufactured fiber are down 6% and exports are down 5%.

**TABLE 1:**
**TOTAL U.S. MANUFACTURED FIBER SHIPMENTS**
**MILLION POUNDS & *PERCENT CHANGE***

| ITEM | 1990 JUL | 1990 JUN | % CHG 7/90-6/90 | 1989 JUL | % CHG 7/90-7/89 | YEAR TO DATE 1990 | YEAR TO DATE 1989 | % CHG YTD 1990-1989 |
|---|---|---|---|---|---|---|---|---|
| ***ARTIFICIAL (CELLULOSIC)*** | | | | | | | | |
| YARN | 19.1 | 16.9 | *+13.0* | 18.9 | *+1.1* | 119.4 | 129.9 | *-8.1* |
| RAYON STAPLE | 24.8 | 22.6 | *+9.7* | 24.8 | -- | 182.4 | 225.0 | *-18.9* |
| **TOTAL ARTIFICIAL (CELL.)** | **43.9** | **39.5** | *+11.1* | **43.7** | *+0.5* | **301.8** | **354.9** | *-15.0* |
| ***SYNTHETIC (NONCELL.)*** | | | | | | | | |
| **YARN+MONOFILAMENT** | | | | | | | | |
| NYLON - INDUSTRIAL | 24.9 | 27.6 | *-9.8* | 29.1 | *-14.4* | 193.3 | 217.4 | *-11.1* |
| - CARPET | 71.8 | 75.8 | *-5.3* | 73.4 | *-2.2* | 563.1 | 549.6 | *+2.5* |
| - TEXTILE [a] | 29.0 | 31.3 | *-7.3* | 31.8 | *-8.8* | 211.3 | 236.5 | *-10.7* |
| POLYESTER - INDUSTRIAL | 28.2 | 30.2 | *-6.6* | 29.8 | *-5.4* | 209.0 | 214.4 | *-2.5* |
| - TEXTILE [a] | 59.7 | 61.4 | *-2.8* | 72.5 | *-17.7* | 430.1 | 512.6 | *-16.1* |
| OLEFIN | 117.4 | 122.2 | *-3.9* | 94.8 | *+23.8* | 828.7 | 729.9 | *+13.5* |
| **TOTAL YARN** | **331.0** | **348.5** | *-5.0* | **331.4** | *-0.1* | **2435.5** | **2460.4** | *-1.0* |
| **STAPLE+TOW+FIBERFILL** | | | | | | | | |
| NYLON | 72.2 | 77.6 | *-7.0* | 74.9 | *-3.6* | 571.5 | 560.4 | *+2.0* |
| ACRYLIC+MODACRYLIC | 38.6 | 43.8 | *-11.9* | 41.1 | *-6.1* | 288.4 | 322.5 | *-10.6* |
| POLYESTER | 156.7 | 167.6 | *-6.5* | 182.3 | *-14.0* | 1200.6 | 1408.9 | *-14.8* |
| OLEFIN | 31.4 | 37.1 | *-15.4* | 27.8 | *+12.9* | 239.6 | 219.7 | *+9.1* |
| **TOTAL STAPLE** | **298.9** | **326.1** | *-8.3* | **326.1** | *-8.3* | **2300.1** | **2511.5** | *-8.4* |
| **TOTAL SYNTHETIC ( NONCELL.)** | **629.9** | **674.6** | *-6.6* | **657.5** | *-4.2* | **4735.6** | **4971.9** | *-4.8* |
| **TOTAL MANUFACTURED FIBER** | **673.8** | **714.1** | *-5.6* | **701.2** | *-3.9* | **5037.4** | **5326.8** | *-5.4* |
| *TOTAL SHIPMENTS DIVIDED AS -* | | | | | | | | |
| DOMESTIC SHIPMENTS [b] | 630.9 | 671.4 | *-6.0* | 662.4 | *-4.8* | 4754.2 | 5028.6 | *-5.5* |
| EXPORTS [c] | 42.9 | 42.7 | *+0.5* | 38.8 | *+10.6* | 283.2 | 298.2 | *-5.0* |

-- No change.
a. Includes low denier industrial yarn.
b. Includes olefin exports.
c. Excludes olefin exports.

August 1990

# Fiber Organon

A Monthly Review

## CONTENTS

### Features


| | |
|---|---|
| **Worldwide Weaving Machinery In Place** | **187 - 194** |
| Graph 1: Worldwide Weaving Machinery Primarily Spun Yarn - Cotton System | 187 |
| Graph 2: Comparison of Worldwide Weaving Machinery | 188 |
| Worldwide Weaving Machinery | 188 - 191 |
| - By Area | 188 |
| - By Country | 189 - 191 |
| Automatic Shuttle-Less Looms in Developed and Developing Countries | 192 |
| Automatic Shuttle Looms in Developed and Developing Countries | 193 |
| Non-Automatic Looms in Developed and Developing Countries | 194 |
| Graph 3: Comparison of Automatic Shuttle-Less Looms in Developed and Developing Countries | 192 |
| Graph 4: Comparison of Automatic Shuttle Looms in Developed and Developing Countries | 193 |
| Graph 5: Comparison of Non-Automatic Looms in Developed and Developing Countries | 194 |


### Industry Regulars


| | |
|---|---|
| **Total U.S. Manufactured Fiber Shipments** | **185** |
| **Monthly U.S. Manufactured Fiber Data** | **195 - 197** |
| Imports by Country of Origin | 195 |
| Imports by Fiber | 196 |
| Exports by Fiber | 197 |
| **Quarterly Manufactured Fiber Data** | **198 - 199** |
| Yarn+Monofilaments | 198 |
| Staple+Tow | 199 |
| **Selected U.S. Monthly Fiber Data** | **200** |


The following is a correction in the **Worldwide Manufactured Fiber Producer Affiliations & Percentage of Capital Ownership** which appeared in our June 1990 ***Fiber Organon.***

On page 151,
**HOECHST A.G. (WEST GERMANY)**

Please change the following:

| | |
|---|---|
| Mexico | Celanese Mexicana, S.A. 40%; public 60% |
| to: | |
| Mexico | Celanese Mexicana, S.A. 51%; public 49% |

**FIBER ECONOMICS BUREAU, INC.**
**President & Editor**
*Rosemarie D. Frick*

**Publishing Headquarters:**
Fiber Economics Bureau, Inc.
101 Eisenhower Parkway
Roseland, NJ 07068
U.S.A.
Telephone: (201) 228-1107
Facsimile: (201) 228-7598

ISSN 0040-5132
**Copyright © 1990**
Fiber Economics Bureau, Inc.

**FIBER ORGANON** is published monthly. All rights reserved. This booklet may be reproduced in part if credit is given.

**Subscription Rates**
(payable in U.S. dollars with order):

| ITEM | U.S.A. | OTHER |
|---|---|---|
| Annually (1 year only) | 250.00 | 300.00 |
| Schools & Nonprofit | 150.00 | 300.00 |
| Single Issues: | | |
| May | 100.00 | 150.00 |
| June | 150.00 | 200.00 |
| September | 100.00 | 150.00 |
| December | 100.00 | 150.00 |
| All Others | 50.00 | 75.00 |

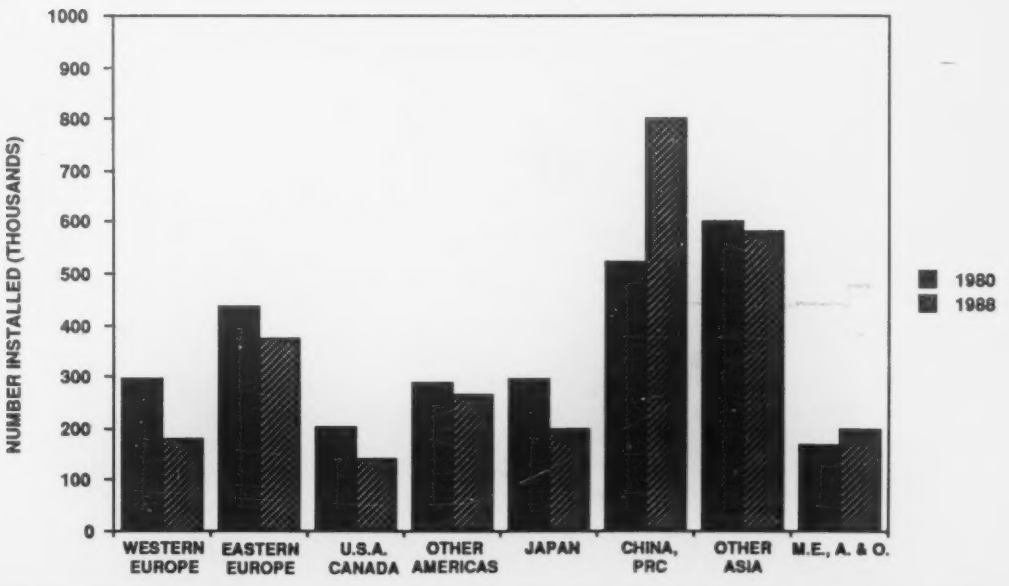
Issues are sent by 1st class mail to U.S. subscribers and by airmail to foreign subscribers.

# WORLDWIDE WEAVING MACHINERY IN PLACE

From 1980 to 1988 the total number of weaving machinery installed worldwide, fell 4% to 2.7 billion, according to the International Textile Manufacturers Federation. Below are some of the highlights concerning the developed countries.

- The total weaving machinery installed in the developed countries fell from 44% in 1980 to 33% in 1988. (Table 2)
- In 1988, 74% of automatic shuttle-less looms in place were in the developed countries. (Table 4)
- Between 1980 and 1988, automatic shuttle looms in place fell by 51% in the developed countries. (Table 5)

**GRAPH 1:**
**WORLDWIDE WEAVING MACHINERY**
**PRIMARILY SPUN YARN - COTTON SYSTEM**

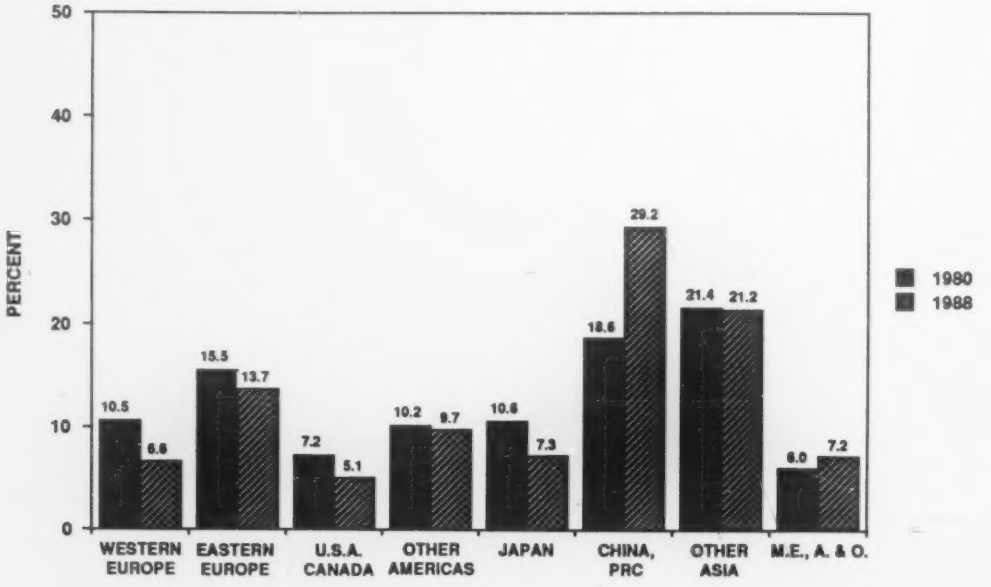


## TABLE 2:
## WORLDWIDE WEAVING MACHINERY

| AREA | LOOMS (75 CM OR WIDER) PRIMARILY FOR WEAVING YARN SPUN ON THE COTTON SYSTEM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | AUTOMATIC LOOMS | | | | NON-AUTOMATIC LOOMS | | TOTAL | |
| | SHUTTLE-LESS | | SHUTTLE | | | | | |
| | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | |
| | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 |
| WESTERN EUROPE | 40,295 | 82,990 | 217,209 | 67,670 | 39,679 | 29,400 | 297,183 | 180,060 |
| EASTERN EUROPE | 92,778 | 202,300 | 278,644 | 162,930 | 64,618 | 9,260 | 436,040 | 374,490 |
| U.S.A. | 38,681 | 64,180 | 158,489 | 65,460 | | | 197,170 | 129,640 |
| CANADA | 400 | 2,650 | 6,850 | 8,000 | | | 7,250 | 10,650 |
| OTHER AMERICAS | 21,529 | 32,410 | 247,048 | 224,850 | 19,870 | 8,500 | 288,447 | 265,760 |
| JAPAN | 14,498 | 40,000 | 104,016 | 69,540 | 179,223 | 90,450 | 297,737 | 199,990 |
| CHINA, PRC | | 15,000 | 310,000 | 660,000 | 215,000 | 125,000 | 525,000 | 800,000 |
| OTHER ASIA | 17,585 | 67,090 | 356,979 | 351,420 | 227,188 | 164,110 | 601,752 | 582,620 |
| M.E., A. & O. | 10,373 | 23,130 | 134,861 | 144,940 | 23,914 | 32,100 | 169,148 | 200,170 |
| TOTAL WORLD | 236,139 | 529,750 | 1,814,096 | 1,754,810 | 769,492 | 458,820 | 2,819,727 | 2,743,380 |

SOURCE: ITMF (International Textile Manufacturers Federation) *International Cotton Industry Statistics*, Volumes 24/1981 & 31/1988.

## GRAPH 2:
## COMPARISON OF WORLDWIDE WEAVING MACHINERY



## TABLE 3:
## WORLDWIDE WEAVING MACHINERY

| COUNTRY | LOOMS (75 CM OR WIDER) PRIMARILY FOR WEAVING YARN SPUN ON THE COTTON SYSTEM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | AUTOMATIC LOOMS | | | | NON-AUTOMATIC LOOMS | | TOTAL | |
| | SHUTTLE-LESS | | SHUTTLE | | | | | |
| | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | |
| | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 |
| ***WESTERN EUROPE*** | | | | | | | | |
| AUSTRIA | 852 | 1,760 | 3,613 | 650 | 38 | | 4,503 | 2,410 |
| BELGIUM[c] | 1,352 * | 5,300 | 14,678 * | 3,650 | 1,170 | 350 | 17,200 | 9,300 |
| DENMARK * | | 180 | 540 | 520 | 150 | | 690 | 700 |
| FINLAND | 307 | 480 | 1,634 | | 138 | | 2,079 | 480 |
| FRANCE[c] | 7,200 | 10,220 | 24,300 | 2,640 | 2,800 | 360 | 34,300 | 13,220 |
| GERMANY, FED. REP.[c l] | 5,100 | 12,680 | 32,374 | 4,600 | 240 | | 37,714 | 17,280 |
| GREECE | 1,800 | 3,240 | 6,950 | 7,000 | 1,750 | | 10,500 | 10,240 |
| IRELAND | 700 | 900 | 350 | 350 | | | 1,050 | 1,250 |
| ITALY[c] | 7,220 | 18,150 | 36,793 | 6,440 | 1,291 | | 45,304 | 24,590 |
| NETHERLANDS[b] | 1,312 | 1,410 | 2,034 | 490 | 91 | | 3,437 | 1,900 |
| NORWAY | 217 | 250 | 453 | 250 | | | 670 | 500 |
| PORTUGAL * | 2,000 | 7,600 | 18,600 | 15,000 | 15,000 | | 35,600 | 22,600 |
| SPAIN[c] | 3,333 * | 6,220 | 20,813 | 9,060 | 3,835 | | 27,981 | 15,280 |
| SWEDEN | 188 | 280 | 107 | | 243 | | 538 | 280 |
| SWITZERLAND[c] | 876 | 1,800 | 5,674 | 1,300 | 10 | | 6,560 | 3,100 |
| TURKEY | 1,431 | 7,200 | 32,627 | 10,000 | 6,858 | 28,000 | 40,916 | 45,200 |
| UNITED KINGDOM[b] | 6,407 | 5,320 | 15,669 | 5,720 | 6,065 | 690 | 28,141 | 11,730 |
| **TOTAL WESTERN EUROPE** | **40,295** | **82,990** | **217,209** | **67,670** | **39,679** | **29,400** | **297,183** | **180,060** |
| ***EASTERN EUROPE*** | | | | | | | | |
| BULGARIA * | 2,990 | 5,000 | 10,850 | 6,000 | 1,850 | | 15,690 | 11,000 |
| CZECHOSLOVAKIA | | 5,000 | 24,310 | 19,000 | 7,243 | 1,000 | 31,553 | 25,000 |
| GERMANY, DEM. REP.[j] | 1,650 | 5,000 | 18,000 | 9,000 | 18,000 * | 1,000 | 37,650 | 15,000 |
| HUNGARY | 2,528 | 3,270 | 5,682 | 4,120 | 1,314 | 40 | 9,524 | 7,430 |
| POLAND | 7,160 | 11,370 | 13,502 | 11,900 | 11,711 | 2,810 | 32,373 | 26,080 |
| ROMANIA | 750 | 1,500 | 7,800 | 8,000 | 10,000 | 4,000 | 18,550 | 13,500 |
| USSR * | 76,000 | 170,000 | 182,000 | 90,000 | 12,000 | | 270,000 | 260,000 |
| YUGOSLAVIA * | 1,700 | 1,160 | 16,500 | 14,910 | 2,500 | 410 | 20,700 | 16,480 |
| **TOTAL EASTERN EUROPE** | **92,778** | **202,300** | **278,644** | **162,930** | **64,618** | **9,260** | **436,040** | **374,490** |
| **TOTAL EUROPE** | **133,073** | **285,290** | **495,853** | **230,600** | **104,297** | **38,660** | **733,223** | **554,550** |

**SOURCE: ITMF (International Textile Manufacturers Federation)** ***International Cotton Industry Statistics*****, Volumes 24/1981 & 31/1988.**

* ITMF estimate.

a. Approximate figures only since the breakdown of total installed loomage into cotton-system looms and other looms is difficult to establish in the U.S.A. Reported figures for total installed loomage were 255,754.

b. Filament weaving looms included.

c. The breakdown of active looms into shuttle and shuttle-less is based on the assumption that the installed active ratio has been the same for both types of looms.

d. In addition, there were approximately 7,000 powerlooms and 440,000 handlooms in the non-mill sector in 1988.

e. Data quoted are for the mill industry only. In addition, there were at the end of 1988 approximately 1.2 million power looms in the decentralized sector, of which less than 3,000 were of the shuttle-less type. Furthermore, there were approximately 4.0 million handlooms in the handloom sector. Alternatively: Total woven-cloth production in India amounted to 12,982 million meters in the year 1987-1988, of which 23% was produced in the mill sector, 50% in the decentralized powerloom sector and 27% in the handloom sector.

f. In addition, there were approximately 60,000 handlooms in the non-mill sector in 1988.

g. In addition, there were approximately 70,000 handlooms in the non-mill sector in 1988.

h. In addition, there were approximately 80,000 powerlooms in the non-mill sector in 1988.

i. Looms installed in member mills of Industrieverband Gewebe (German Weavers Association) only.

j. Substantially revised for 1988.

For 1988: The number of filament/silk weaving looms (in some cases estimated and available for certain countries only) installed at end of 1988 were as follows: Belgium 2,000; China 172,000; Finland 300; France 10,000; Germany F.R. 5,000; India 330,000 (mainly in non-mill sector); Indonesia 14,500; Italy 15,000; Japan 143,520; Korea 110,000; Mexico 14,000; Pakistan 48,000; Spain 6,000; Sweden 180; Switzerland 1,220; Taiwan 14,180; and the U.S.S.R. 20,000.

## TABLE 3:
## WORLDWIDE WEAVING MACHINERY *(CONTINUED)*

| COUNTRY | LOOMS (75 CM OR WIDER) PRIMARILY FOR WEAVING YARN SPUN ON THE COTTON SYSTEM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | AUTOMATIC LOOMS | | | | NON-AUTOMATIC LOOMS | | TOTAL | |
| | SHUTTLE-LESS | | SHUTTLE | | | | | |
| | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | |
| | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 |
| U.S.A. [bc] | 38,681 | 64,180 | 158,489 | 65,460 | | | 197,170 [a] | 129,640 |
| CANADA [b] | 400 | 2,650 | 6,850 | 8,000 | | | 7,250 | 10,650 |
| ***OTHER AMERICAS*** | | | | | | | | |
| ARGENTINA | 3,200 | 3,800 | 18,600 | 17,000 | 3,000 | | 24,800 | 20,800 |
| BOLIVIA | | 20 | 570 | 600 | 580 | 500 | 1,150 | 1,120 |
| BRAZIL | 4,500 | 8,500 | 129,300 | 125,000 | 10,000 * | 5,000 | 143,800 | 138,500 |
| CHILE * | 250 | 520 | 6,900 | 7,000 | 1,350 | 1,000 | 8,500 | 8,520 |
| COLOMBIA | 1,200 | 2,300 | 14,000 | 10,400 | | | 15,200 | 12,700 |
| COSTA RICA | 22 | 70 | 1,108 | 1,000 | | | 1,130 | 1,070 |
| CUBA * [i] | | 1,600 | 6,300 | 5,200 | 200 | | 6,500 | 6,800 |
| DOMINICAN REPUBLIC | 52 | 170 | 548 | 550 | | | 600 | 720 |
| ECUADOR | 350 | 670 | 3,000 | 3,000 | | | 3,350 | 3,670 |
| EL SALVADOR | 55 | 130 | 3,165 | 3,000 | 290* | | 3,510 | 3,130 |
| GUATEMALA | 50 | 300 | 2,800 | 3,000 | | | 2,850 | 3,300 |
| HAITI | | | 547 | 500 | | | 547 | 500 |
| JAMAICA | | | 520 | 500 | | | 520 | 500 |
| MEXICO * | 10,900 | 10,500 | 40,400 | 33,000 | 900 | 2,000 | 52,200 | 45,500 |
| NICARAGUA | | 160 | 1,600 | 850 | | | 1,600 | 1,010 |
| PARAGUAY | 250 | 50 | 870 | 750 | | | 1,120 | 800 |
| PERU * | 410 | 1,000 | 8,900 | 6,000 | 2,850 | | 12,160 | 7,000 |
| URUGUAY | 200 | 420 | 1,820 | 1,500 | 300 | | 2,320 | 1,920 |
| VENEZUELA | 90 | 2,200 | 6,100 | 6,000 | 400 | | 6,590 | 8,200 |
| TOTAL OTHER AMERICAS | 21,529 | 32,410 | 247,048 | 224,850 | 19,870 | 8,500 | 288,447 | 265,760 |
| JAPAN [c] | 14,498 | 40,000 | 104,016 | 69,540 | 179,223 | 90,450 | 297,737 | 199,990 |
| CHINA, PRC | | 15,000 | 310,000 | 660,000 | 215,000 | 125,000 | 525,000 | 800,000 |
| ***OTHER ASIA*** | | | | | | | | |
| BANGLADESH [d] | 120 | 120 | 1,950 | 8,500 | | | 2,070 | 8,620 |
| HONG KONG | 2,420 | 7,270 | 24,450 | 7,080 | | | 26,870 | 14,350 |
| INDIA [bce] | 500 | 2,210 | 48,690 | 55,840 | 158,607 | 139,610 | 207,797 | 197,660 |
| INDONESIA | 2,750 | 8,000 | 41,327 | 85,000 | 44,571 | | 88,648 | 93,000 |
| KOREA, REP. OF | 1,500 | 14,500 | 89,712 | 48,000 | | 15,000* | 91,212 | 77,500 |
| MALAYSIA | | 630 | 7,600 | 6,470 | | | 7,600 | 7,100 |
| PAKISTAN [h] | 470 | 3,500 | 25,508 | 12,350 | 6,000 * | | 31,978 | 15,850 |
| PHILIPPINES | 720 | 1,530 | 19,274 | 19,750 | | | 19,994 | 21,280 |
| SINGAPORE | 100 | 250 | 1,518 | 750 | | | 1,618 | 1,000 |
| SRI LANKA | 125 | 70 | 4,950 | 650 | 3,510 | 9,500 | 8,585 | 10,220 |
| TAIWAN | 8,640 | 27,010 | 39,510 | 47,030 | 8,500 * | | 56,650 | 74,040 |
| THAILAND | 240 | 2,000 | 52,490 | 60,000 | 6,000 | | 58,730 | 62,000 |
| TOTAL OTHER ASIA | 17,585 | 67,090 | 356,979 | 351,420 | 227,188 | 164,110 | 601,752 | 582,620 |

## TABLE 3:
## WORLDWIDE WEAVING MACHINERY *(CONTINUED)*

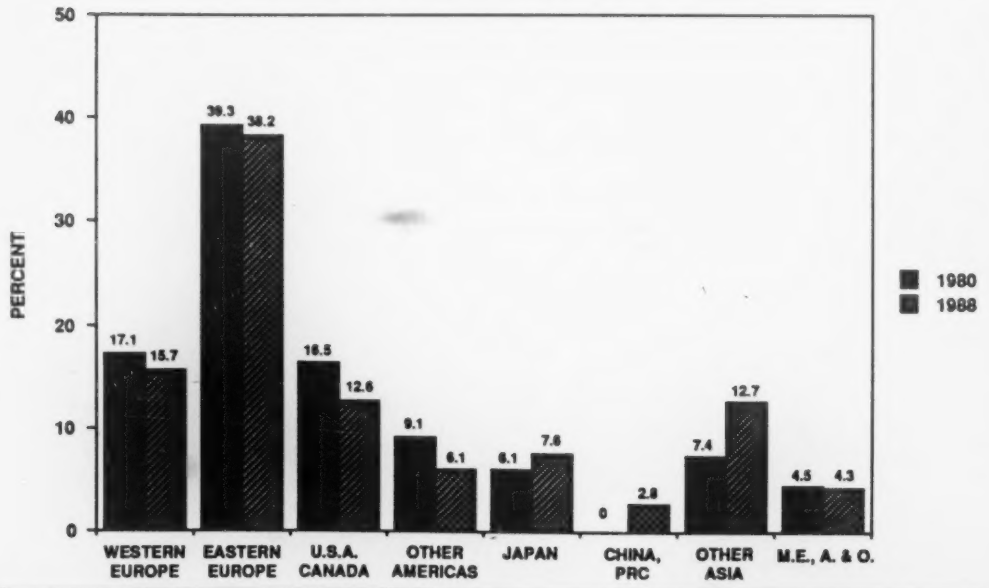
| COUNTRY | LOOMS (75 CM OR WIDER) PRIMARILY FOR WEAVING YARN SPUN ON THE COTTON SYSTEM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | AUTOMATIC LOOMS | | | | NON-AUTOMATIC LOOMS | | TOTAL | |
| | SHUTTLE-LESS | | SHUTTLE | | | | | |
| | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | | NUMBER INSTALLED AT END OF YEAR | |
| | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 | 1980 | 1988 |
| ***MIDDLE EAST, AFRICA & OCEANIA*** | | | | | | | | |
| ALGERIA * | 1,150 | 2,000 | 8,300 | 8,000 | 700 | 500 | 10,150 | 10,500 |
| ANGOLA * | 57 | 60 | 685 | 700 | 123 | 100 | 865 | 860 |
| AUSTRALIA | 540 | 1,000 * | 2,910 | 100 * | 519 | | 3,969 | 1,100 |
| BENIN | | | 192 | 2,000 | | | 192 | 2,000 |
| BOTSWANA | | 120 | | | | | 0 | 120 |
| BURKINA FASO | | | | 200 | | | 0 | 200 |
| BURMA | 30 | 30 | 2,600 | 2,500 | 2,240 * | 2,000 | 4,870 | 4,530 |
| C.A. REPUBLIC | | | 456 | 500 | | | 456 | 500 |
| CAMEROON | 28 | 200 | 1,200 | 1,000 | | | 1,228 | 1,200 |
| CHAD | | | 285 | 280 | | | 285 | 280 |
| CONGO | | | 204 | 190 | | | 204 | 190 |
| EGYPT | 450 | 3,600 | 31,850 | 35,000 | 8,000 * | 20,000 | 40,300 | 58,600 |
| ETHIOPIA * | 60 | 300 | 2,200 | 1,500 | 420 | 1,500 | 2,680 | 3,300 |
| GHANA | 32 | 30 | 3,606 | 3,610 | | | 3,638 | 3,640 |
| GUINEA | | | | 180 | | | 0 | 180 |
| IRAN | 1,150 | 3,500 | 18,400 | 19,000 | 3,500 | 3,000 | 23,050 | 25,500 |
| IRAQ | 1,230 | 350 | 6,563 | 3,850 | | | 7,793 | 4,200 |
| ISRAEL | 460 | 1,100 | 3,000 | 3,000 | 1,000 * | 500 | 4,460 | 4,600 |
| IVORY COAST | 153 | 630 | 2,650 | 2,000 | | | 2,803 | 2,630 |
| KENYA | 124 | 220 | 1,396 | 1,750 | 280 | | 1,800 | 1,970 |
| LEBANON | 50 | 50 | 1,600 | 1,600 | 300 * | 300 | 1,950 | 1,950 |
| LIBYA | | 400 | | 2,600 | | | 0 | 3,000 |
| MADAGASCAR | 45 | 200 | 1,143 | 1,230 | 740 * | 500 | 1,928 | 1,930 |
| MALAWI | | 70 | 600 | 600 | | | 600 | 670 |
| MALI | | | 1,120 | 1,120 | | | 1,120 | 1,120 |
| MOROCCO | 290 | 1,150 | 3,209 | 4,400 | 789 | | 4,288 | 5,550 |
| MOZAMBIQUE | | 20 | 2,427 | 2,430 | | | 2,427 | 2,450 |
| NEPAL [9] | | 60 | | 1,000 | | | 0 | 1,060 |
| NIGER | | | 278 | 280 | | | 278 | 280 |
| NIGERIA | 1,500 | 2,250 | 9,030 | 15,000 | 3,000 | 2,000 | 13,530 | 19,250 |
| SENEGAL | 12 | 150 | 768 | 500 | | | 780 | 650 |
| SOMALIA | 154 | 150 | 281 | 280 | | | 435 | 430 |
| SOUTH AFRICA | 1,900 | 1,900 | 5,300 | 2,400 | 530 | 1,600 | 7,730 | 5,900 |
| SUDAN | | | 8,462 | 10,000 | 850 | | 9,312 | 10,000 |
| SWAZILAND | | 40 | | | | | 0 | 40 |
| SYRIA | 286 | 1,500 | 3,114 | 1,000 | | | 3,400 | 2,500 |
| TANZANIA | 40 | 150 | 3,503 | 5,000 | 623 | | 4,166 | 5,150 |
| TOGO * | | | 650 | | | | 650 | 0 |
| TUNISIA | 380 | 1,080 | 1,940 | 3,700 | | | 2,320 | 4,780 |
| UGANDA | 240 | 240 | 1,640 * | 1,240 | 300 * | | 2,180 * | 1,480 |
| UPPER VOLTA | | | 200 | | | | 200 | 0 |
| ZAIRE | | 90 | 2,618 | 2,700 | | | 2,618 | 2,790 |
| ZAMBIA | 12 | 140 | 481 | 1,000 | | | 493 | 1,140 |
| ZIMBABWE | | 350 | | 1,500 | | 100 | 0 | 1,950 |
| **TOTAL M.E., A. & O.** | **10,373** | **23,130** | **134,861** | **144,940** | **23,914** | **32,100** | **169,148** | **200,170** |
| **TOTAL WORLD** | **236,139** | **529,750** | **1,814,096** | **1,754,810** | **769,492** | **458,820** | **2,819,727** | **2,743,380** |

## TABLE 4:
## AUTOMATIC SHUTTLE-LESS LOOMS
## IN DEVELOPED AND DEVELOPING COUNTRIES
PERCENT

| | 1980 | 1988 |
|---|---|---|
| **DEVELOPED COUNTRIES:** | **79.0** | **74.1** |
| WESTERN EUROPE | 17.1 | 15.7 |
| EASTERN EUROPE | 39.3 | 38.2 |
| USA/CANADA | 16.5 | 12.6 |
| JAPAN | 6.1 | 7.6 |
| **DEVELOPING COUNTRIES:** | **21.0** | **25.9** |
| OTHER AMERICAS | 9.1 | 6.1 |
| CHINA, PRC | 0 | 2.8 |
| OTHER ASIA | 7.4 | 12.7 |
| M.E., A. & O. | 4.5 | 4.3 |

SOURCE: ITMF (International Textile Manufacturers Federation) *International Cotton Industry Statistics*, Volumes 24/1981 & 31/1988.

## GRAPH 3:
## COMPARISON OF AUTOMATIC SHUTTLE-LESS LOOMS
## IN DEVELOPED AND DEVELOPING COUNTRIES

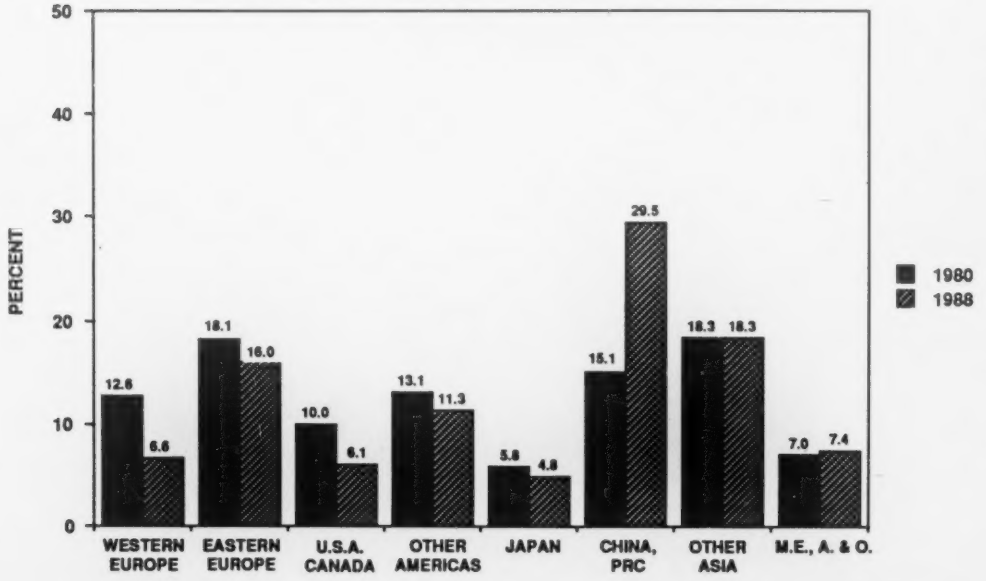


## TABLE 5:
## AUTOMATIC SHUTTLE LOOMS
## IN DEVELOPED AND DEVELOPING COUNTRIES
PERCENT

| | 1980 | 1988 |
|---|---|---|
| **DEVELOPED COUNTRIES:** | **46.5** | **33.5** |
| WESTERN EUROPE | 12.6 | 6.6 |
| EASTERN EUROPE | 18.1 | 16.0 |
| USA/CANADA | 10.0 | 6.1 |
| JAPAN | 5.8 | 4.8 |
| **DEVELOPING COUNTRIES:** | **53.5** | **66.5** |
| OTHER AMERICAS | 13.1 | 11.3 |
| CHINA, PRC | 15.1 | 29.5 |
| OTHER ASIA | 18.3 | 18.3 |
| M.E., A. & O. | 7.0 | 7.4 |

SOURCE: ITMF (International Textile Manufacturers Federation) *International Cotton Industry Statistics*, Volumes 24/1981 & 31/1998.

## GRAPH 4:
## COMPARISON OF AUTOMATIC SHUTTLE LOOMS
## IN DEVELOPED AND DEVELOPING COUNTRIES

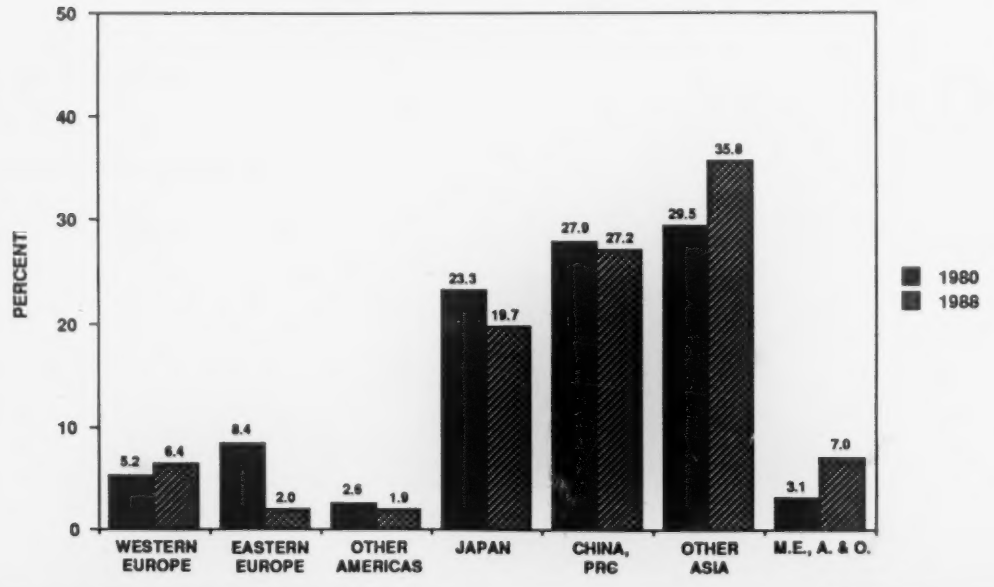


## TABLE 6:
## NON-AUTOMATIC LOOMS
## IN DEVELOPED AND DEVELOPING COUNTRIES
PERCENT

| | 1980 | 1988 |
|---|---|---|
| DEVELOPED COUNTRIES: | 36.9 | 28.1 |
| WESTERN EUROPE | 5.2 | 6.4 |
| EASTERN EUROPE | 8.4 | 2.0 |
| JAPAN | 23.3 | 19.7 |
| DEVELOPING COUNTRIES: | 63.1 | 71.9 |
| OTHER AMERICAS | 2.6 | 1.9 |
| CHINA, PRC | 27.9 | 27.2 |
| OTHER ASIA | 29.5 | 35.8 |
| M.E., A. & O. | 3.1 | 7.0 |

SOURCE: ITMF (International Textile Manufacturers Federation) *International Cotton Industry Statistics*, Volumes 24/1981 & 31/1988.

## GRAPH 5:
## COMPARISON OF NON-AUTOMATIC LOOMS
## IN DEVELOPED AND DEVELOPING COUNTRIES



## TABLE 7:
## SELECTED U.S. MANUFACTURED FIBER IMPORTS BY COUNTRY OF ORIGIN
THOUSAND POUNDS

| ITEMS & COUNTRY | 1990 JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR TO DATE 1990 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***ARTIFICIAL (CELLULOSIC) YARN, MONOFIL & STRIPS*** | | | | | | | | | | | | | | |
| AUSTRIA | 67 | 3 | 1 | 89 | 68 | 83 | | | | | | | 311 | 11 |
| BRAZIL | 26 | 53 | 53 | 74 | 165 | 107 | | | | | | | 478 | 426 |
| CANADA | 628 | 303 | 171 | 405 | 377 | 432 | | | | | | | 2316 | 3869 |
| CHILE | 0 | 309 | 66 | 44 | 287 | 44 | | | | | | | 750 | 176 |
| GERMANY, FED. REP. OF | 422 | 516 | 844 | 684 | 783 | 506 | | | | | | | 3755 | 3335 |
| IRELAND | 145 | 0 | 36 | 35 | 34 | 36 | | | | | | | 286 | 281 |
| JAPAN | 104 | 72 | 111 | 104 | 170 | 164 | | | | | | | 725 | 834 |
| KOREA, REP. OF | 0 | 22 | 33 | 22 | 29 | 0 | | | | | | | 106 | 166 |
| MEXICO | 102 | 4 | 121 | 78 | 100 | 116 | | | | | | | 521 | 768 |
| NETHERLANDS | 282 | 264 | 345 | 178 | 275 | 483 | | | | | | | 1827 | 1318 |
| UNITED KINGDOM | 34 | 22 | 60 | 0 | 38 | 52 | | | | | | | 206 | 556 |
| ALL OTHER COUNTRIES [a] | 21 | 56 | 22 | 49 | 25 | 42 | | | | | | | 215 | 374 |
| **TOTAL ARTIFICIAL YARN** | **1831** | **1624** | **1863** | **1762** | **2351** | **2065** | | | | | | | **11496** | **12114** |
| ***ARTIFICIAL (CELLULOSIC) STAPLE+TOW+TOPS*** | | | | | | | | | | | | | | |
| AUSTRIA | 319 | 493 | 108 | 1254 | 910 | 2497 | | | | | | | 5581 | 2159 |
| CANADA | 4973 | 3854 | 4391 | 4333 | 4128 | 4049 | | | | | | | 25728 | 20081 |
| GERMANY, FED. REP. OF | 89 | 134 | 257 | 322 | 347 | 243 | | | | | | | 1392 | 612 |
| JAPAN | 143 | 204 | 126 | 131 | 238 | 69 | | | | | | | 911 | 1523 |
| POLAND | 1. 1 | 171 | 43 | 46 | 0 | 109 | | | | | | | 493 | 152 |
| SWEDEN | 118 | 71 | 49 | 72 | 0 | 4 | | | | | | | 314 | 76 |
| SWITZERLAND | 0 | 27 | 0 | 14 | 0 | 0 | | | | | | | 41 | 217 |
| TAIWAN | 354 | 988 | 1323 | 964 | 1732 | 1242 | | | | | | | 6603 | 464 |
| UNITED KINGDOM | 89 | 93 | 73 | 37 | 162 | 46 | | | | | | | 500 | 649 |
| ALL OTHER COUNTRIES [b] | 95 | 59 | 91 | 18 | 32 | 866 | | | | | | | 1161 | 2438 |
| **TOTAL ARTIFICIAL STAPLE+TOW** | **6304** | **6094** | **6461** | **7191** | **7549** | **9125** | | | | | | | **42724** | **28371** |
| ***SYNTHETIC (NONCELLULOSIC) YARN, MONOFIL & STRIPS*** | | | | | | | | | | | | | | |
| ARGENTINA | 0 | 0 | 43 | 34 | 9 | 0 | | | | | | | 86 | 125 |
| BELGIUM | 776 | 122 | 589 | 594 | 1384 | 786 | | | | | | | 4251 | 921 |
| BRAZIL | 70 | 71 | 57 | 180 | 118 | 76 | | | | | | | 572 | 710 |
| CANADA | 3834 | 2895 | 4150 | 3775 | 4492 | 3853 | | | | | | | 22999 | 18362 |
| COSTA RICA | 762 | 517 | 497 | 462 | 787 | 470 | | | | | | | 3495 | 2695 |
| ECUADOR | 53 | 16 | 67 | 67 | 75 | 34 | | | | | | | 312 | 342 |
| FRANCE | 2007 | 1305 | 1065 | 1378 | 1223 | 1302 | | | | | | | 8280 | 6813 |
| GERMANY, FED. REP. OF | 2096 | 2021 | 1480 | 1548 | 2024 | 1917 | | | | | | | 11084 | 15638 |
| ITALY | 892 | 434 | 593 | 905 | 861 | 313 | | | | | | | 3998 | 4142 |
| JAPAN | 760 | 658 | 505 | 573 | 356 | 622 | | | | | | | 3474 | 3306 |
| KOREA, REP. OF | 31 | 0 | 90 | 20 | 46 | 42 | | | | | | | 229 | 287 |
| MEXICO | 1393 | 900 | 1607 | 1396 | 1145 | 1967 | | | | | | | 8408 | 13349 |
| NETHERLANDS | 103 | 305 | 921 | 219 | 117 | 195 | | | | | | | 1860 | 998 |
| PORTUGAL | 62 | 234 | 49 | 42 | 62 | 0 | | | | | | | 449 | 304 |
| SINGAPORE | 16 | 16 | 0 | 0 | 33 | 0 | | | | | | | 65 | 91 |
| TAIWAN | 791 | 227 | 114 | 818 | 437 | 959 | | | | | | | 3346 | 8232 |
| THAILAND | 58 | 93 | 95 | 123 | 64 | 65 | | | | | | | 498 | 499 |
| UNITED KINGDOM | 1881 | 1492 | 2076 | 1029 | 1282 | 1718 | | | | | | | 9478 | 9193 |
| ALL OTHER COUNTRIES [c] | 351 | 85 | 147 | 79 | 79 | 91 | | | | | | | 832 | 2151 |
| **TOTAL SYNTHETIC YARN** | **15936** | **11391** | **14145** | **13240** | **14594** | **14410** | | | | | | | **83716** | **88158** |
| ***SYNTHETIC (NONCELLULOSIC) STAPLE+TOW+TOPS*** | | | | | | | | | | | | | | |
| AUSTRIA | 0 | 53 | 11 | 11 | 6 | 14 | | | | | | | 95 | 26 |
| AUSTRALIA | 38 | 120 | 30 | 72 | 63 | 106 | | | | | | | 429 | 333 |
| BELGIUM | 1 | 16 | 0 | 158 | 0 | 78 | | | | | | | 253 | 336 |
| CANADA | 3703 | 2439 | 3082 | 2325 | 2156 | 1402 | | | | | | | 15107 | 7286 |
| FRANCE | 592 | 297 | 769 | 436 | 558 | 364 | | | | | | | 3016 | 1916 |
| GERMANY, FED. REP. OF | 1017 | 1236 | 1063 | 1205 | 1618 | 1398 | | | | | | | 7537 | 9625 |
| INDIA | 1731 | 1055 | 4215 | 0 | 2528 | 1752 | | | | | | | 11281 | 7930 |
| IRELAND | 0 | 26 | 0 | 0 | 0 | 84 | | | | | | | 110 | 1449 |
| ITALY | 422 | 318 | 534 | 204 | 206 | 176 | | | | | | | 1860 | 1223 |
| JAPAN | 1754 | 1783 | 2307 | 1539 | 1531 | 1874 | | | | | | | 10768 | 12858 |
| KOREA, REP. OF | 1786 | 1273 | 1778 | 2043 | 3441 | 4750 | | | | | | | 15071 | 24345 |
| MEXICO | 3590 | 2041 | 2015 | 2355 | 3385 | 1382 | | | | | | | 14768 | 4102 |
| NETHERLANDS | 1 | 0 | 57 | 20 | 10 | 20 | | | | | | | 108 | 475 |
| SPAIN | 35 | 0 | 0 | 0 | 0 | 93 | | | | | | | 128 | 418 |
| SWITZERLAND | 399 | 124 | 87 | 385 | 107 | 280 | | | | | | | 1382 | 778 |
| TAIWAN | 888 | 572 | 931 | 1400 | 1476 | 1215 | | | | | | | 6482 | 4494 |
| TURKEY | 112 | 114 | 0 | 0 | 0 | 0 | | | | | | | 226 | 166 |
| UNITED KINGDOM | 2249 | 1868 | 2834 | 2159 | 2242 | 1157 | | | | | | | 12509 | 12272 |
| ALL OTHER COUNTRIES [d] | 549 | 326 | 137 | 92 | 219 | 1362 | | | | | | | 2685 | 213 |
| **TOTAL SYNTHETIC STAPLE+TOW** | **18867** | **13641** | **19850** | **14404** | **19546** | **17507** | | | | | | | **103815** | **90245** |

a. Italy 54, India 34, Ecuador 33, France 30, Taiwan 22, Uruguay 13, Belgium 12, Turkey 12, Thailand 4, Hong Kong 1.

b. Finland 480, Thailand 330, Yugoslavia 157, France 72, Italy 71, Netherlands 44, Brazil 7.

c. Spain 194, Ireland 121, Turkey 84, Paraguay 83, Switzerland 83, El Salvador 60, Morocco 47, Sweden 43, Hong Kong 40, Austria 24, Finland 22, Yugoslavia 8, Haiti 6, Colombia 5, Honduras 5, Greece 3, Australia 2, Dominican Republic 2.

d. Brazil 1402, Venezuela 395, China, PRC 224, Thailand 209, Sweden 180, Malaysia 88, Hong Kong 64, Denmark 47, Poland 47, Romania 29.

# TABLE 8:
# U.S. MANUFACTURED FIBER IMPORTS
## THOUSAND POUNDS

| ITEM | 1990 JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR TO DATE 1990 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***ARTIFICIAL (CELLULOSIC) FIBER*** | | | | | | | | | | | | | | |
| FILAMENT YARN | | | | | | | | | | | | | | |
| HIGH TENACITY | 242 | 208 | 240 | 163 | 110 | 92 | | | | | | | 1055 | 1296 |
| TEXTURED | 54 | 8 | 0 | 33 | 32 | 81 | | | | | | | 208 | 232 |
| OTHER | 1385 | 1371 | 1471 | 1528 | 2171 | 1855 | | | | | | | 9781 | 10069 |
| MONOFILAMENTS & STRIPS | 150 | 37 | 152 | 38 | 38 | 37 | | | | | | | 452 | 517 |
| **SUBTOTAL ABOVE** | **1831** | **1624** | **1863** | **1762** | **2351** | **2065** | | | | | | | **11496** | **12114** |
| STAPLE | 5089 | 5884 | 6154 | 6846 | 7218 | 8895 | | | | | | | 40986 | 28163 |
| TOW | 312 | 210 | 307 | 342 | 331 | 230 | | | | | | | 1732 | 157 |
| TOPS | 3 | 0 | 0 | 3 | 0 | 0 | | | | | | | 6 | 51 |
| **SUBTOTAL ABOVE** | **6304** | **6094** | **6461** | **7191** | **7549** | **9125** | | | | | | | **42724** | **28371** |
| **WASTE** | **0** | **0** | **0** | **22** | **0** | **88** | | | | | | | **110** | **400** |
| ***SYNTHETIC (NONCELLULOSIC) FIBERS*** | | | | | | | | | | | | | | |
| FILAMENT YARN | | | | | | | | | | | | | | |
| NYLON | | | | | | | | | | | | | | |
| HIGH TENACITY | 1435 | 856 | 1437 | 1000 | 1336 | 1220 | | | | | | | 7284 | 9007 |
| TEXTURED | | | | | | | | | | | | | | |
| UP TO 450 DENIER | 270 | 333 | 253 | 338 | 520 | 212 | | | | | | | 1926 | 1880 |
| OVER 450 DENIER | 2936 | 1350 | 2132 | 3039 | 3721 | 3074 | | | | | | | 16252 | 6982 |
| OTHER | 4531 | 3817 | 4273 | 2090 | 2435 | 3285 | | | | | | | 20431 | 24263 |
| MONOFILAMENTS & STRIPS | 216 | 117 | 148 | 191 | 134 | 164 | | | | | | | 970 | 661 |
| **SUBTOTAL ABOVE** | **9388** | **6473** | **8243** | **6658** | **8146** | **7955** | | | | | | | **46863** | **42793** |
| POLYESTER | | | | | | | | | | | | | | |
| HIGH TENACITY | 614 | 408 | 506 | 421 | 345 | 457 | | | | | | | 2751 | 4734 |
| TEXTURED | 785 | 643 | 626 | 923 | 581 | 1368 | | | | | | | 4926 | 10220 |
| POY | 719 | 119 | 117 | 758 | 251 | 716 | | | | | | | 2680 | 7728 |
| OTHER | 2038 | 1457 | 1459 | 1683 | 1949 | 1300 | | | | | | | 9886 | 8963 |
| MONOFILAMENTS & STRIPS | 53 | 0 | 67 | 40 | 53 | 38 | | | | | | | 251 | 328 |
| **SUBTOTAL ABOVE** | **4209** | **2627** | **2775** | **3825** | **3179** | **3679** | | | | | | | **20494** | **31993** |
| OTHER SYNTHETIC FILAMENT | | | | | | | | | | | | | | |
| TEXTURED | 1451 | 1408 | 2224 | 1880 | 2281 | 1847 | | | | | | | 11091 | 9975 |
| OTHER | 277 | 223 | 301 | 276 | 307 | 324 | | | | | | | 1708 | 1567 |
| MONOFILAMENTS & STRIPS | 611 | 660 | 602 | 601 | 681 | 405 | | | | | | | 3560 | 1830 |
| **SUBTOTAL ABOVE** | **2339** | **2291** | **3127** | **2757** | **3269** | **2576** | | | | | | | **16359** | **13372** |
| STAPLE | | | | | | | | | | | | | | |
| NYLON | 4048 | 3037 | 4055 | 3032 | 3267 | 2179 | | | | | | | 19618 | 9754 |
| POLYESTER | 9261 | 5813 | 9622 | 8652 | 12118 | 11296 | | | | | | | 54762 | 50853 |
| ACRYLIC | 1711 | 1729 | 2063 | 1586 | 860 | 1458 | | | | | | | 9407 | 8773 |
| POLYPROPYLENE | 543 | 37 | 160 | 27 | 105 | 90 | | | | | | | 962 | 960 |
| OTHER | 196 | 190 | 320 | 146 | 151 | 362 | | | | | | | 1365 | 2935 |
| TOW | | | | | | | | | | | | | | |
| NYLON | 409 | 308 | 555 | 385 | 603 | 471 | | | | | | | 2731 | 2087 |
| POLYESTER | 15 | 70 | 70 | 2 | 26 | 174 | | | | | | | 357 | 559 |
| ACRYLIC | 2512 | 1973 | 2649 | 2252 | 2133 | 1350 | | | | | | | 12869 | 11711 |
| OTHER | 70 | 5 | 35 | 105 | 135 | 0 | | | | | | | 350 | 397 |
| TOPS | 102 | 479 | 321 | 217 | 148 | 127 | | | | | | | 1394 | 2216 |
| **SUBTOTAL ABOVE** | **18867** | **13641** | **19850** | **14404** | **19546** | **17507** | | | | | | | **103815** | **90245** |
| WASTE | | | | | | | | | | | | | | |
| NYLON | 2694 | 2074 | 1628 | 1933 | 1267 | 1940 | | | | | | | 11536 | 11592 |
| POLYESTER | 2703 | 2241 | 1882 | 1067 | 3127 | 2128 | | | | | | | 13148 | 4917 |
| OTHER | 444 | 571 | 1027 | 602 | 838 | 876 | | | | | | | 4358 | 3020 |
| **TOTAL MANUFACTURED FIBERS ABOVE** | **48779** | **37636** | **46856** | **40221** | **49272** | **48139** | | | | | | | **270903** | **238817** |
| ***OTHER MFRD. FIBER YARN & THREAD*** | | | | | | | | | | | | | | |
| SEWING THREAD | | | | | | | | | | | | | | |
| FILAMENT | 115 | 59 | 54 | 62 | 59 | 121 | | | | | | | 470 | 532 |
| SPUN YARN | 427 | 503 | 318 | 594 | 534 | 436 | | | | | | | 2812 | 2369 |
| SPUN YARNS | | | | | | | | | | | | | | |
| SYNTHETIC | 2420 | 2155 | 2639 | 1902 | 2841 | 2270 | | | | | | | 14227 | 28493 |
| ARTIFICIAL | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | 0 | 0 |
| PUT UP FOR RETAIL SALE | 32 | 24 | 70 | 34 | 87 | 88 | | | | | | | 335 | 268 |
| **GRAND TOTAL ABOVE** | **51773** | **40377** | **49937** | **42813** | **52793** | **51054** | | | | | | | **288747** | **270499** |

**SOURCE:** U.S. Census Bureau Report IM145X.

## TABLE 9:
## U.S. MANUFACTURED FIBER EXPORTS
### THOUSAND POUNDS

| ITEM | 1990 | | | | | | | | | | | | YEAR TO DATE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | 1990 | 1989 |
| ***ARTIFICIAL (CELLULOSIC) FIBER*** | | | | | | | | | | | | | | |
| FILAMENT YARN | | | | | | | | | | | | | | |
| HIGH TENACITY | 92 | 37 | 44 | 6 | 45 | 157 | | | | | | | 381 | 139 |
| TEXTURED | 217 | 9 | 30 | 284 | 101 | 114 | | | | | | | 755 | 567 |
| OTHER | 66 | 106 | 57 | 64 | 46 | 18 | | | | | | | 357 | 871 |
| MONOFILAMENTS & STRIPS | 97 | 0 | 15 | 11 | 26 | 3 | | | | | | | 152 | 204 |
| **SUBTOTAL ABOVE** | **472** | **152** | **146** | **365** | **218** | **292** | | | | | | | **1645** | **1781** |
| STAPLE | 1195 | 2051 | 1838 | 1329 | 1645 | 1171 | | | | | | | 9229 | 10303 |
| TOPS | 333 | 0 | 203 | 187 | 185 | 58 | | | | | | | 966 | 332 |
| **SUBTOTAL ABOVE** | **1528** | **2051** | **2041** | **1516** | **1830** | **1229** | | | | | | | **10195** | **10635** |
| **WASTE** | **330** | **407** | **614** | **547** | **803** | **587** | | | | | | | **3088** | **7308** |
| ***SYNTHETIC (NONCELLULOSIC) FIBERS*** | | | | | | | | | | | | | | |
| FILAMENT YARN | | | | | | | | | | | | | | |
| NYLON | | | | | | | | | | | | | | |
| HIGH TENACITY | 7757 | 7357 | 9332 | 8892 | 15463 | 10230 | | | | | | | 59031 | 56564 |
| TEXTURED | | | | | | | | | | | | | | |
| UP TO 450 DENIER | 1571 | 588 | 626 | 2098 | 791 | 751 | | | | | | | 6425 | 4583 |
| OVER 450 DENIER | 5636 | 4353 | 5225 | 4130 | 3350 | 4019 | | | | | | | 26713 | 27368 |
| OTHER | 2637 | 2264 | 3143 | 2401 | 2191 | 2066 | | | | | | | 14702 | 13036 |
| MONOFILAMENTS & STRIPS | 8 | 32 | 93 | 33 | 42 | 35 | | | | | | | 243 | 1322 |
| **SUBTOTAL ABOVE** | **17609** | **14594** | **18419** | **17554** | **21837** | **17101** | | | | | | | **107114** | **102873** |
| POLYESTER | | | | | | | | | | | | | | |
| HIGH TENACITY | 4308 | 5166 | 5459 | 4737 | 3944 | 4664 | | | | | | | 28278 | 20502 |
| TEXTURED | 3074 | 3021 | 4078 | 3508 | 3650 | 4310 | | | | | | | 21641 | 19437 |
| POY | 1831 | 2368 | 1287 | 1783 | 2918 | 1306 | | | | | | | 11493 | 6996 |
| OTHER | 1297 | 1746 | 1824 | 1275 | 2294 | 1566 | | | | | | | 10002 | 5366 |
| MONOFILAMENTS & STRIPS | 185 | 285 | 91 | 93 | 188 | 188 | | | | | | | 1028 | 1390 |
| **SUBTOTAL ABOVE** | **10695** | **12586** | **12739** | **11396** | **12994** | **12032** | | | | | | | **72442** | **53691** |
| OTHER SYNTHETIC FILAMENT | | | | | | | | | | | | | | |
| TEXTURED | 535 | 523 | 549 | 801 | 424 | 434 | | | | | | | 3266 | 4891 |
| OTHER | 2035 | 2007 | 2279 | 2972 | 4061 | 1909 | | | | | | | 15263 | 9169 |
| MONOFILAMENTS & STRIPS | 876 | 913 | 1664 | 1218 | 1223 | 1230 | | | | | | | 7124 | 4909 |
| **SUBTOTAL ABOVE** | **3446** | **3443** | **4492** | **4991** | **5708** | **3573** | | | | | | | **25653** | **18969** |
| STAPLE | | | | | | | | | | | | | | |
| NYLON | 3163 | 2765 | 2343 | 3257 | 2210 | 1729 | | | | | | | 15467 | 19026 |
| POLYESTER | 7157 | 6405 | 9490 | 7701 | 8861 | 6382 | | | | | | | 45996 | 68845 |
| ACRYLIC | 4584 | 3178 | 3882 | 3936 | 4697 | 6363 | | | | | | | 26640 | 38250 |
| POLYPROPYLENE | 2038 | 1561 | 2666 | 3228 | 2211 | 2805 | | | | | | | 14507 | 11489 |
| OTHER | 2688 | 923 | 1504 | 961 | 1818 | 1062 | | | | | | | 8956 | 10414 |
| TOW | | | | | | | | | | | | | | |
| NYLON | 121 | 176 | 155 | 304 | 145 | 191 | | | | | | | 1092 | 486 |
| POLYESTER | 18 | 64 | 0 | 100 | 6 | 52 | | | | | | | 240 | 2335 |
| ACRYLIC | 1710 | 1787 | 989 | 956 | 1245 | 1506 | | | | | | | 8193 | 10581 |
| OTHER | 26 | 12 | 15 | 243 | 0 | 679 | | | | | | | 975 | 730 |
| TOPS | 3984 | 2729 | 2309 | 4760 | 2552 | 4741 | | | | | | | 21075 | 9548 |
| **SUBTOTAL ABOVE** | **25489** | **19600** | **23353** | **25444** | **23745** | **25510** | | | | | | | **143141** | **171884** |
| WASTE | | | | | | | | | | | | | | |
| NYLON | 4117 | 4250 | 3894 | 2746 | 3957 | 3139 | | | | | | | 22103 | 13396 |
| POLYESTER | 3268 | 2845 | 2782 | 3321 | 2596 | 1833 | | | | | | | 16645 | 23484 |
| OTHER | 3343 | 3700 | 4979 | 4352 | 4994 | 6193 | | | | | | | 27561 | 39628 |
| **TOTAL MANUFACTURED FIBERS ABOVE** | **70297** | **63628** | **73459** | **72232** | **78482** | **71489** | | | | | | | **429587** | **443649** |
| ***OTHER MFRD. FIBER YARN & THREAD*** | | | | | | | | | | | | | | |
| SEWING THREAD | | | | | | | | | | | | | | |
| FILAMENT | 28 | 45 | 32 | 25 | 68 | 13 | | | | | | | 211 | 283 |
| SPUN YARN | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | 0 | 0 |
| SPUN YARNS | | | | | | | | | | | | | | |
| SYNTHETIC | 3007 | 4304 | 3749 | 4278 | 4103 | 3890 | | | | | | | 23331 | 17586 |
| ARTIFICIAL | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | 0 | 0 |
| PUT UP FOR RETAIL SALE | 287 | 398 | 641 | 746 | 789 | 715 | | | | | | | 3576 | 3816 |
| **GRAND TOTAL ABOVE** | **73619** | **68375** | **77881** | **77281** | **83442** | **76107** | | | | | | | **456706** | **465334** |

**SOURCE:** U.S. Census Bureau Report EM522.

## TABLE 10:
## QUARTERLY MANUFACTURED FIBER DATA

MILLION POUNDS

| ITEM | 1988 1ST Q | 1988 2ND Q | 1988 3RD Q | 1988 4TH Q | 1988 YEAR | 1989 1ST Q | 1989 2ND Q | 1989 3RD Q | 1989 4TH Q | 1989 YEAR | 1990 1ST Q | 1990 2ND Q | 1990 3RD Q | 1990 4TH Q | 1990 YEAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YARN+MONOFILAMENTS | | | | | | | | | |
| ***ARTIFICIAL (CELLULOSIC) YARN*** [d] | | | | | | | | | | | | | | | |
| **PRODUCTION** | **49.1** | **54.4** | **54.9** | **55.5** | **213.9** | **52.7** | **55.8** | **56.7** | **52.3** | **217.5** | **46.8** | **52.3** | | | |
| SHIPMENTS - DOMESTIC | 41.4 | 47.3 | 45.8 | 48.1 | 182.6 | 46.0 | 50.3 | 45.6 | 45.4 | 187.3 | 40.1 | 43.3 | | | |
| - EXPORT | 8.7 | 7.9 | 10.0 | 7.5 | 34.1 | 6.8 | 7.9 | 8.4 | 8.6 | 31.7 | 7.8 | 9.1 | | | |
| **TOTAL SHIPMENTS** | **50.1** | **55.2** | **55.8** | **55.6** | **216.7** | **52.8** | **58.2** | **54.0** | **54.0** | **219.0** | **47.9** | **52.4** | | | |
| **ENDING STOCK** | **13.2** | **12.4** | **11.5** | **11.4** | | **11.3** | **8.9** | **11.6** | **9.9** | | **8.8** | **8.7** | | | |
| IMPORTS | 4.0 | 4.0 | 4.4 | 5.2 | 17.6 | 6.3 | 5.9 | 1.3 | 6.8 | 26.3 | 5.3 | 6.2 | | | |
| **TOTAL AVAILABLE** | **45.4** | **51.3** | **50.2** | **53.3** | **200.2** | **52.3** | **56.2** | **52.9** | **52.2** | **213.6** | **45.4** | **49.5** | | | |
| ***NYLON*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **431.7** | **440.0** | **428.8** | **427.0** | **1727.5** | **436.9** | **447.5** | **434.8** | **440.0** | **1759.2** | **428.3** | **438.1** | | | |
| SHIPMENTS - DOMESTIC | 387.8 | 395.4 | 391.1 | 398.1 | 1572.4 | 387.9 | 399.7 | 400.9 | 386.8 | 1575.3 | 382.5 | 383.2 | | | |
| - EXPORT | 39.6 | 38.1 | 41.5 | 46.8 | 166.0 | 42.7 | 38.9 | 34.8 | 40.4 | 156.8 | 37.9 | 38.4 | | | |
| **TOTAL SHIPMENTS** | **427.4** | **433.5** | **432.6** | **444.9** | **1738.4** | **430.6** | **438.6** | **435.7** | **427.2** | **1732.1** | **420.4** | **421.6** | | | |
| **ENDING STOCK** | **140.5** | **147.0** | **143.2** | **125.3** | | **131.6** | **140.5** | **139.6** | **152.4** | | **160.3** | **176.8** | | | |
| ***OLEFIN*** [a] | | | | | | | | | | | | | | | |
| **PRODUCTION** | **307.6** | **313.8** | **296.6** | **306.1** | **1224.1** | **313.8** | **324.6** | **310.4** | **308.4** | **1257.2** | **340.3** | **370.1** | | | |
| SHIPMENTS - DOMESTIC | 303.5 | 307.7 | 288.8 | 299.8 | 1199.8 | 308.0 | 315.5 | 301.6 | 300.9 | 1226.0 | 335.8 | 365.4 | | | |
| - EXPORT | 2.7 | 5.9 | 6.0 | 5.2 | 19.8 | 5.2 | 6.4 | 7.2 | 3.7 | 22.5 | 4.6 | 5.5 | | | |
| **TOTAL SHIPMENTS** | **306.2** | **313.6** | **294.8** | **305.0** | **1219.6** | **313.2** | **321.9** | **308.8** | **304.6** | **1248.5** | **340.4** | **370.9** | | | |
| **ENDING STOCK** | **54.3** | **54.5** | **56.3** | **57.4** | | **58.0** | **60.7** | **62.3** | **66.1** | | **66.0** | **65.2** | | | |
| ***POLYESTER*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **284.5** | **313.5** | **304.6** | **326.2** | **1228.8** | **314.4** | **325.3** | **306.4** | **262.9** | **1209.0** | **282.1** | **280.0** | | | |
| SHIPMENTS - DOMESTIC | 266.7 | 291.9 | 278.2 | 320.6 | 1157.4 | 292.0 | 303.6 | 264.1 | 251.0 | 1110.7 | 241.7 | 271.9 | | | |
| - EXPORT | 18.8 | 17.8 | 16.7 | 21.4 | 74.7 | 16.0 | 13.1 | 13.3 | 16.2 | 58.6 | 16.7 | 20.9 | | | |
| **TOTAL SHIPMENTS** | **285.5** | **309.7** | **294.9** | **342.0** | **1232.1** | **308.0** | **316.7** | **277.4** | **267.2** | **1169.3** | **258.4** | **292.8** | | | |
| **ENDING STOCK** | **108.3** | **112.1** | **121.8** | **106.0** | | **112.4** | **121.0** | **150.0** | **145.7** | | **149.4** | **136.6** | | | |
| ***TOTAL SYNTHETIC (NONCELLULOSIC) ABOVE*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **1023.8** | **1067.3** | **1030.0** | **1059.3** | **4180.4** | **1065.1** | **1097.4** | **1051.6** | **1011.3** | **4225.4** | **1030.7** | **1088.2** | | | |
| SHIPMENTS - DOMESTIC | 958.0 | 995.0 | 958.1 | 1018.5 | 3929.6 | 987.9 | 1018.8 | 966.6 | 938.7 | 3912.0 | 960.0 | 1020.5 | | | |
| - EXPORT | 61.1 | 61.8 | 64.2 | 73.4 | 260.5 | 63.9 | 58.4 | 55.3 | 60.3 | 237.9 | 59.2 | 64.8 | | | |
| **SHIPMENTS** | **1019.1** | **1056.8** | **1022.3** | **1091.9** | **4190.1** | **1051.8** | **1077.2** | **1021.9** | **999.0** | **4149.9** | **1019.2** | **1085.3** | | | |
| **ENDING STOCK** | **303.1** | **313.6** | **321.3** | **288.7** | | **302.0** | **322.2** | **351.9** | **364.2** | | **375.7** | **378.6** | | | |
| DOMESTIC SHIPMENTS | 958.0 | 995.0 | 958.1 | 1018.5 | 3929.6 | 987.9 | 1018.8 | 966.6 | 938.7 | 3912.0 | 960.0 | 1020.5 | | | |
| IMPORTS -TEXTURED YARN [b] | 15.7 | 14.7 | 16.1 | 14.1 | 60.6 | 14.4 | 14.7 | 15.0 | 11.8 | 55.9 | 14.4 | 19.8 | | | |
| -OTHER YARN [b] | 11.2 | 11.1 | 11.9 | 13.4 | 47.6 | 23.3 | 33.0 | 32.5 | 28.6 | 117.4 | 24.6 | 20.2 | | | |
| -MONOFILAMENTS | 1.8 | 2.3 | 2.0 | 2.0 | 8.1 | 1.2 | 1.6 | 4.0 | 2.1 | 8.9 | 2.5 | 2.3 | | | |
| TOTAL IMPORTS | 28.7 | 28.1 | 30.0 | 29.5 | 116.3 | 38.9 | 49.3 | 51.5 | 42.5 | 182.2 | 41.5 | 42.3 | | | |
| **TOTAL AVAILABLE** | **986.7** | **1023.1** | **988.1** | **1048.0** | **4045.9** | **1026.8** | **1068.1** | **1018.1** | **981.2** | **4094.2** | **1001.5** | **1062.8** | | | |
| | | | | | | GLASS FIBER | | | | | | | | | |
| **TOTAL SHIPMENTS** | **386.4** | **415.2** | **405.9** | **380.2** | **1587.7** | **394.2** | **399.3** | **363.4** | **373.2** | **1530.1** | **393.2** | **414.6** | | | |

**FOOTNOTES FOR TABLE ABOVE & OPPOSITE:**

**"Imports"** are imports for consumption, as reported by the U.S. Census Bureau.

a. Also include film fiber as well as spunbonded polypropylene.

b. Includes singles and plied.

c. For 1988, these figures are composites of the nylon, acrylic+modacrylic and polyester staple imports, i.e., Commodity Numbers 309.4331, .4351, .4336 & .4361. For 1989-1990 Harmonized Tariff Schedule numbers, please see pages 73-79 of the April 1989 ***Fiber Organon.***

d. Includes both rayon & acetate yarn.

e. For 1988, these figures are composites of olefin and other staple imports, i.e., Commodity Numbers 309.4371, .4341 & .4390. For 1989-1990, Harmonized Tariff Schedule numbers, please see pages 73-79 of the April 1989 ***Fiber Organon.***

## TABLE 10:
## QUARTERLY MANUFACTURED FIBER DATA *(Continued)*

MILLION POUNDS

| ITEM | 1988 1ST Q | 1988 2ND Q | 1988 3RD Q | 1988 4TH Q | 1988 YEAR | 1989 1ST Q | 1989 2ND Q | 1989 3RD Q | 1989 4TH Q | 1989 YEAR | 1990 1ST Q | 1990 2ND Q | 1990 3RD Q | 1990 4TH Q | 1990 YEAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | STAPLE+TOW | | | | | | | | | |
| ***RAYON*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **106.6** | **101.2** | **99.4** | **92.6** | **399.8** | **100.8** | **101.2** | **83.2** | **77.6** | **362.8** | **73.3** | **72.0** | | | |
| SHIPMENTS -DOMESTIC | 101.9 | 102.0 | 94.0 | 88.1 | 386.0 | 99.7 | 91.7 | 76.6 | 70.2 | 338.2 | 77.6 | 71.6 | | | |
| -EXPORT | 5.1 | 6.1 | 5.5 | 3.8 | 20.5 | 3.4 | 5.4 | 4.3 | 3.1 | 16.2 | 4.1 | 4.3 | | | |
| **TOTAL SHIPMENTS** | **107.0** | **108.1** | **99.5** | **91.9** | **406.5** | **103.1** | **97.1** | **80.9** | **73.3** | **354.4** | **81.7** | **75.9** | | | |
| **ENDING STOCK** | **20.3** | **13.4** | **13.3** | **14.0** | | **11.7** | **15.8** | **18.1** | **22.4** | | **14.0** | **10.1** | | | |
| DOMESTIC SHIPMENTS | 101.9 | 102.0 | 94.0 | 88.1 | 386.0 | 99.7 | 91.7 | 76.6 | 70.2 | 338.2 | 77.6 | 71.6 | | | |
| IMPORTS FOR CONSUMPTION | | | | | | | | | | | | | | | |
| STAPLE | 3.2 | 3.8 | 5.5 | 6.5 | 19.0 | } 15.1 | 13.3 | 12.4 | 13.2 | 54.0 | 18.9 | 23.9 | | | |
| GROUPED FILAMENTS | 0.2 | 0.3 | 0.5 | 0.4 | 1.4 | | | | | | | | | | |
| TOTAL IMPORTS | 3.4 | 4.1 | 6.0 | 6.9 | 20.4 | 15.1 | 13.3 | 12.4 | 13.2 | 54.0 | 18.9 | 23.9 | | | |
| **TOTAL AVAILABLE** | **105.3** | **106.1** | **100.0** | **95.0** | **406.4** | **114.8** | **105.0** | **89.0** | **83.4** | **392.2** | **96.5** | **95.5** | | | |
| ***NYLON*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **231.5** | **235.9** | **226.6** | **247.8** | **941.8** | **252.9** | **242.0** | **241.0** | **244.8** | **980.7** | **237.0** | **273.0** | | | |
| SHIPMENTS DOMESTIC | 239.4 | 223.9 | 241.6 | 240.0 | 944.9 | 242.0 | 231.2 | 245.8 | 236.3 | 955.3 | 242.6 | 243.1 | | | |
| -EXPORT | 4.3 | 4.3 | 4.9 | 5.5 | 19.0 | 7.5 | 4.8 | 5.4 | 5.5 | 23.2 | 7.1 | 6.5 | | | |
| **TOTAL SHIPMENTS** | **243.7** | **228.2** | **246.5** | **245.5** | **963.9** | **249.5** | **236.0** | **251.2** | **241.8** | **978.5** | **249.7** | **249.6** | | | |
| **ENDING STOCK** | **57.5** | **65.2** | **45.3** | **47.6** | | **51.0** | **57.0** | **46.8** | **49.8** | | **37.1** | **60.5** | | | |
| IMPORTS | 4.9 | 5.1 | 5.4 | 6.5 | 21.9 | 6.4 | 5.4 | 5.4 | 8.9 | 26.1 | 12.4 | 9.9 | | | |
| **TOTAL AVAILABLE** | **244.3** | **229.0** | **247.0** | **246.5** | **966.8** | **248.4** | **236.6** | **251.2** | **245.2** | **981.4** | **255.0** | **253.0** | | | |
| ***ACRYLIC+MODACRYLIC*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **148.8** | **150.9** | **141.5** | **146.9** | **588.1** | **144.3** | **145.6** | **129.4** | **123.4** | **542.7** | **129.6** | **136.9** | | | |
| SHIPMENTS -DOMESTIC | 109.0 | 109.3 | 107.3 | 95.5 | 421.1 | 112.9 | 112.4 | 102.8 | 86.7 | 414.8 | 98.8 | 94.0 | | | |
| -EXPORT | 47.7 | 29.1 | 39.8 | 52.5 | 169.1 | 23.6 | 32.5 | 30.0 | 36.5 | 122.6 | 24.5 | 32.5 | | | |
| **TOTAL SHIPMENTS** | **156.7** | **138.4** | **147.1** | **148.0** | **590.2** | **136.5** | **144.9** | **132.8** | **123.2** | **537.4** | **123.3** | **126.5** | | | |
| **ENDING STOCK** | **55.4** | **67.9** | **62.3** | **61.2** | | **69.0** | **69.7** | **66.3** | **66.5** | | **72.8** | **83.2** | | | |
| IMPORTS | 3.3 | 4.4 | 3.3 | 4.3 | 15.3 | 9.4 | 11.1 | 8.5 | 8.5 | 37.5 | 12.6 | 9.6 | | | |
| **TOTAL AVAILABLE** | **112.3** | **113.7** | **110.6** | **99.8** | **436.4** | **122.3** | **123.5** | **111.3** | **95.2** | **452.3** | **111.4** | **103.6** | | | |
| ***OLEFIN*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **94.3** | **94.5** | **85.9** | **89.3** | **364.0** | **97.1** | **97.7** | **92.0** | **94.8** | **381.6** | **96.9** | **105.3** | | | |
| SHIPMENTS -DOMESTIC | 83.8 | 87.6 | 84.8 | 88.0 | 344.2 | 91.6 | 93.5 | 91.4 | 86.9 | 363.4 | 94.0 | 101.9 | | | |
| -EXPORT | 5.6 | 5.8 | 4.4 | 3.8 | 19.6 | 3.1 | 3.7 | 3.4 | 3.8 | 14.0 | 6.0 | 6.3 | | | |
| **TOTAL SHIPMENTS** | **89.4** | **93.4** | **89.2** | **91.8** | **363.8** | **94.7** | **97.2** | **94.8** | **90.7** | **377.4** | **100.0** | **108.2** | | | |
| **ENDING STOCK** | **35.0** | **36.1** | **32.8** | **30.3** | | **32.8** | **33.3** | **30.5** | **34.6** | | **31.5** | **28.6** | | | |
| ***POLYESTER*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **587.4** | **619.5** | **604.3** | **640.6** | **2451.8** | **609.4** | **648.8** | **591.0** | **536.1** | **2385.3** | **520.8** | **545.6** | | | |
| SHIPMENTS -DOMESTIC | 558.3 | 572.5 | 551.2 | 629.8 | 2311.8 | 575.4 | 594.6 | 543.0 | 548.3 | 2261.3 | 502.5 | 510.9 | | | |
| -EXPORT | 27.8 | 31.1 | 38.2 | 40.0 | 137.1 | 34.9 | 21.7 | 20.1 | 16.8 | 93.5 | 15.3 | 15.2 | | | |
| **TOTAL SHIPMENTS** | **586.1** | **603.6** | **589.4** | **669.8** | **2448.9** | **610.3** | **616.3** | **563.1** | **565.1** | **2354.8** | **517.8** | **526.1** | | | |
| **ENDING STOCK** | **157.6** | **173.7** | **188.6** | **159.4** | | **158.5** | **191.0** | **216.9** | **189.9** | | **192.9** | **212.4** | | | |
| IMPORTS | 15.0 | 20.7 | 22.3 | 15.2 | 73.2 | 21.5 | 29.9 | 34.5 | 32.7 | 118.6 | 24.9 | 30.3 | | | |
| **TOTAL AVAILABLE** | **573.3** | **593.2** | **573.5** | **645.0** | **2385.0** | **596.9** | **624.5** | **577.5** | **581.0** | **2379.9** | **527.4** | **541.2** | | | |
| ***TOTAL SYNTHETIC (NONCELLULOSIC)*** | | | | | | | | | | | | | | | |
| **PRODUCTION** | **1062.0** | **1100.8** | **1058.3** | **1124.6** | **4345.7** | **1103.7** | **1134.1** | **1053.4** | **999.1** | **4290.3** | **984.3** | **1060.8** | | | |
| SHIPMENTS -DOMESTIC | 990.5 | 993.3 | 984.9 | 1053.3 | 4022.0 | 1021.9 | 1031.7 | 983.0 | 958.2 | 3994.8 | 937.9 | 949.9 | | | |
| -EXPORT | 85.4 | 70.3 | 87.3 | 101.8 | 344.8 | 69.1 | 62.7 | 58.9 | 62.6 | 253.3 | 52.9 | 60.5 | | | |
| **TOTAL SHIPMENTS** | **1075.9** | **1063.6** | **1072.2** | **1155.1** | **4366.8** | **1091.0** | **1094.4** | **1041.9** | **1020.8** | **4248.1** | **990.8** | **1010.4** | | | |
| **ENDING STOCK** | **305.7** | **342.9** | **329.0** | **298.5** | | **311.3** | **351.0** | **362.5** | **340.8** | | **334.3** | **384.7** | | | |
| DOMESTIC SHIPMENTS | 990.5 | 993.3 | 984.9 | 1053.3 | 4022.0 | 1021.9 | 1031.7 | 983.0 | 958.2 | 3994.8 | 937.9 | 949.9 | | | |
| IMPORTS FOR CONSUMPTION | | | | | | | | | | | | | | | |
| 3 FIBERS ABOVE [C] | 23.2 | 30.2 | 31.0 | 26.0 | 110.4 | 37.3 | 46.4 | 48.4 | 50.1 | 182.2 | 49.9 | 49.8 | | | |
| OTHER N.C. STAPLE [*] | 5.6 | 5.7 | 4.3 | 4.2 | 19.8 | } 3.7 | 2.8 | 1.7 | 2.0 | 10.2 | 2.5 | 1.7 | | | |
| GROUPED FILAMENTS | 14.5 | 17.8 | 15.7 | 17.6 | 65.8 | | | | | | | | | | |
| TOTAL IMPORTS | 43.3 | 53.7 | 51.0 | 48.0 | 196.0 | 41.0 | 49.2 | 50.1 | 52.1 | 192.4 | 52.4 | 51.5 | | | |
| **TOTAL AVAILABLE** | **1033.8** | **1047.0** | **1035.9** | **1101.3** | **4218.0** | **1062.9** | **1080.9** | **1033.1** | **1010.3** | **4187.2** | **990.3** | **1001.4** | | | |

See footnotes on opposite page.

## TABLE 11:
## SELECTED U.S. MONTHLY FIBER DATA

MILLION POUNDS

| ITEM | 1990 JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR TO DATE[a] 1990 | 1989 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MANUFACTURED FIBER TOTAL SHIPMENTS[b,c]** | | | | | | | | | | | | | | |
| ***ARTIFICIAL (CELLULOSIC)*** | | | | | | | | | | | | | | |
| YARN | 15.1 | 15.4 | 17.4 | 18.1 | 17.4 | 16.9 | 19.1 | | | | | | 119.4 | 129.9 |
| RAYON STAPLE | 30.1 | 25.3 | 26.3 | 28.2 | 25.1 | 22.6 | 24.8 | | | | | | 182.4 | 225.0 |
| TOTAL ARTIFICIAL (CELLULOSIC) | 45.2 | 40.7 | 43.7 | 46.3 | 42.5 | 39.5 | 43.9 | | | | | | 301.8 | 354.9 |
| ***SYNTHETIC (NONCELLULOSIC)*** | | | | | | | | | | | | | | |
| **YARN+MONOFILAMENTS** | | | | | | | | | | | | | | |
| NYLON - INDUSTRIAL[d] | 24.9 | 30.3 | 28.4 | 28.4 | 28.8 | 27.6 | 24.9 | | | | | | 193.3 | 217.4 |
| - CARPET | 86.5 | 81.1 | 82.2 | 85.6 | 80.1 | 75.8 | 71.8 | | | | | | 563.1 | 549.6 |
| - TEXTILE[f] | 28.9 | 28.2 | 29.9 | 32.0 | 32.0 | 31.3 | 29.0 | | | | | | 211.3 | 236.5 |
| POLYESTER - INDUSTRIAL[d] | 27.2 | 28.6 | 31.8 | 32.9 | 30.1 | 30.2 | 28.2 | | | | | | 209.0 | 214.4 |
| - TEXTILE[f] | 56.6 | 56.2 | 58.0 | 69.8 | 68.4 | 61.4 | 59.7 | | | | | | 430.1 | 512.6 |
| OLEFIN[e] | 107.2 | 116.5 | 116.7 | 124.2 | 124.5 | 122.2 | 117.4 | | | | | | 828.7 | 729.9 |
| TOTAL YARN | 331.3 | 340.9 | 347.0 | 372.9 | 363.9 | 348.5 | 331.0 | | | | | | 2435.5 | 2460.4 |
| **STAPLE+TOW+FIBERFILL** | | | | | | | | | | | | | | |
| NYLON | 88.8 | 74.9 | 86.0 | 85.0 | 87.0 | 77.6 | 72.2 | | | | | | 571.5 | 560.4 |
| ACRYLIC+MODACRYLIC | 40.4 | 39.7 | 43.2 | 39.7 | 43.0 | 43.8 | 38.6 | | | | | | 288.4 | 322.5 |
| POLYESTER | 168.9 | 175.7 | 173.2 | 182.2 | 176.3 | 167.6 | 156.7 | | | | | | 1200.6 | 1408.9 |
| OLEFIN | 30.3 | 34.4 | 35.3 | 35.1 | 36.0 | 37.1 | 31.4 | | | | | | 239.6 | 219.7 |
| TOTAL STAPLE | 328.4 | 324.7 | 337.7 | 342.0 | 342.3 | 326.1 | 298.9 | | | | | | 2300.1 | 2511.5 |
| TOTAL SYNTHETIC (NONCELLULOSIC) | 659.7 | 665.6 | 684.7 | 714.9 | 706.2 | 674.6 | 629.9 | | | | | | 4735.6 | 4971.9 |
| TOTAL MANUFACTURED FIBER | 704.9 | 706.3 | 728.4 | 761.2 | 748.7 | 714.1 | 673.8 | | | | | | 5037.4 | 5326.8 |
| **MANUFACTURED FIBER END-OF-MONTH STOCK** | | | | | | | | | | | | | | |
| ***ARTIFICIAL (CELLULOSIC)*** | | | | | | | | | | | | | | |
| YARN | 9.7 | 9.9 | 8.8 | 9.1 | 7.6 | 8.7 | 8.9 | | | | | | 8.9 | 11.0 |
| RAYON STAPLE | 20.2 | 17.2 | 14.0 | 14.2 | 11.9 | 10.1 | 12.4 | | | | | | 12.4 | 16.8 |
| TOTAL ARTIFICIAL (CELLULOSIC) | 29.9 | 27.1 | 22.8 | 23.3 | 19.5 | 18.8 | 21.3 | | | | | | 21.3 | 27.8 |
| ***SYNTHETIC (NONCELLULOSIC)*** | | | | | | | | | | | | | | |
| **YARN+MONOFILAMENTS** | | | | | | | | | | | | | | |
| NYLON - INDUSTRIAL[d] | 36.8 | 33.7 | 33.4 | 36.0 | 30.1 | 35.7 | 42.2 | | | | | | 42.2 | 26.7 |
| - CARPET | 60.5 | 61.2 | 62.6 | 63.2 | 65.4 | 78.2 | 82.3 | | | | | | 82.3 | 73.6 |
| - TEXTILE[f] | 57.0 | 59.9 | 64.3 | 63.5 | 63.5 | 62.9 | 62.1 | | | | | | 62.1 | 52.7 |
| POLYESTER - INDUSTRIAL[d] | 39.3 | 40.6 | 39.5 | 39.2 | 37.9 | 35.8 | 35.6 | | | | | | 35.6 | 33.9 |
| - TEXTILE[f] | 94.5 | 104.9 | 109.9 | 106.4 | 99.7 | 100.8 | 100.1 | | | | | | 100.1 | 99.7 |
| OLEFIN[e] | 68.1 | 66.6 | 66.0 | 63.9 | 63.8 | 65.2 | 63.6 | | | | | | 63.6 | 61.1 |
| TOTAL YARN | 356.2 | 366.9 | 375.7 | 372.2 | 360.4 | 378.6 | 385.9 | | | | | | 385.9 | 347.7 |
| **STAPLE+TOW+FIBERFILL** | | | | | | | | | | | | | | |
| NYLON | 40.1 | 40.5 | 37.1 | 44.3 | 47.7 | 60.5 | 65.3 | | | | | | 65.3 | 59.1 |
| ACRYLIC+MODACRYLIC | 69.5 | 70.9 | 72.8 | 75.3 | 78.9 | 83.2 | 87.0 | | | | | | 87.0 | 71.7 |
| POLYESTER | 193.5 | 195.1 | 192.9 | 217.4 | 210.8 | 212.4 | 216.8 | | | | | | 216.8 | 226.5 |
| OLEFIN | 34.6 | 33.4 | 31.5 | 29.8 | 28.5 | 28.6 | 29.8 | | | | | | 29.8 | 34.2 |
| TOTAL STAPLE | 337.7 | 339.9 | 334.3 | 366.8 | 365.9 | 384.7 | 398.9 | | | | | | 398.9 | 391.5 |
| TOTAL SYNTHETIC (NONCELLULOSIC) | 693.9 | 706.8 | 710.0 | 739.0 | 726.3 | 763.3 | 784.8 | | | | | | 784.8 | 739.2 |
| TOTAL MANUFACTURED FIBER | 723.8 | 733.9 | 732.8 | 762.3 | 745.8 | 782.1 | 806.1 | | | | | | 806.1 | 767.0 |
| **COTTON CONSUMPTION** | | | | | | | | | | | | | | |
| RAW COTTON | 317.3 | 332.1 | 365.9 | 327.8 | 340.0 | 379.3 | | | | | | | 2062.4 | 1983.1 |
| **WOOL CONSUMPTION[g]** | 1ST QUARTER | | 2ND QUARTER | | 3RD QUARTER | | 4TH QUARTER | | | | | | | |
| APPAREL CLASS WOOL | 29.9 | | | | | | | | | | | | 29.9 | 35.8 |
| CARPET CLASS WOOL | 3.8 | | | | | | | | | | | | 3.8 | 3.3 |
| TOTAL RAW WOOL | 33.7 | | | | | | | | | | | | 33.7 | 39.1 |

a. "Year to date" totals for stock, are the latest month's figures.
b. The monthly production of each fiber may be calculated as total shipments plus a stock increase, or less a stock decrease, over the month.
c. Producers' total domestic shipments plus export shipments.
d. Industrial is defined as 500 denier and coarser with an Instron tenacity of 7 grams or more per denier.
e. Olefin yarn+monofilaments also includes spunbonded polypropylene and film fiber produced for textile end uses.
f. Includes low denier industrial yarn.
g. **Wool data for 1990 available on a quarterly basis only.**

C3460-1


# FIBER ORGANON

*Formerly Textile Organon*

Volume 61, No. 9 ☐ September 1990

A publication of *Fiber Economics Bureau, Inc.*


## MANUFACTURED FIBER, COTTON & WOOL END USE SURVEY

### HIGHLIGHTS

- Annual Manufactured Fiber, Cotton and Wool End Use Survey.
- Manufactured Fiber & Semimanufactured Imports 1989 . . . see page 206.

**Due to Tariff Schedule Code changes, the U.S. Department of Agriculture Raw Fiber Equivalent Survey for 1989 has not been published. This study reflects preliminary estimates with best available data.**

This month's issue of the ***Fiber Organon*** contains our annual report of U.S. manufactured, cotton and wool fiber consumption by end use. This report is part of a continuing series covering fiber end use for the 41 years 1949-1989.

This survey is to measure the amount of raw manufactured, cotton and wool fiber required to produce the various end use items. Other fibers such as silk, linen, jute and sisal are used in the various products covered by the survey, but no quantity data for these fibers are included in the end uses.

**Comparability With Past Data**

Every year we report the most up-to-date information on fiber end use, which means previous data must sometimes be revised. Data in a series which has been revised will be denoted by an "r". Changes in definitions or coverage in an end use item are noted in the definitions.

For example, data on glass fiber are no longer available to prevent disclosure of company-level data. These data were last reported in the September 1985 issue. There are new definitions for waste, apparel, home textiles and industrial and other consumer-type items.

The data in this survey may be used in conjunction with earlier issues of the ***Textile Organon & Fiber Organon*** as follows:

| Years | *Textile Organon & Fiber Organon Issues* |
|---|---|
| 1949-1955 | November 1961 |
| 1956-1959 | January 1966 |
| 1960-1963 | January 1970 |
| 1964-1965 | November 1971 |
| 1966-1967 | November 1973 |
| 1968-1969 | November 1975 |
| 1970 | November 1976 |
| 1971-1972 | November & December 1978 |
| 1973 | November 1980 |
| 1974 | November 1981 |
| 1975 | November 1982 |
| 1976 | November 1983 |
| 1977 | September 1984 |
| 1978 | September 1985 |
| 1979 | September 1986 |
| 1983 | September 1987 |
| 1984 | September 1988 |
| 1985 | September 1989 |

*Continued On Page 203*

**TABLE 1:**
**U.S. FIBER CONSUMPTION BY END USE [a]**

| | TOTAL FIBER | | | | | | | | MANUFACTURED FIBER | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MILLION POUNDS | | | | % OF TOTAL END USE [b] | | | | MILLION POUNDS | | | | % OF TOTAL END USE [b] | | | |
| END USE | 1986 | 1987 | 1988 | 1989 | 1986 | 1987 | 1988 | 1989 | 1986 | 1987 | 1988 | 1989* | 1986 | 1987 | 1988 | 1989 |
| APPAREL | 5138 | 5564 | 5152 | 5515 | *40* | *40* | *38* | *39* | 2637 | 2638 | 2512 | 2485 | *30* | *29* | *27* | *27* |
| HOME TEXTILES | 2000 | 2162 | 2048 | 2160 | *15* | *16* | *15* | *16* | 900 | 912 | 954 | 927 | *10* | *10* | *10* | *10* |
| FLOOR COVERINGS | 2799 | 2975 | 3050 | 2996 | *22* | *21* | *23* | *21* | 2767 | 2934 | 3017 | 2959 | *32* | *32* | *33* | *32* |
| INDUSTRIAL & OTHER CONS. - TYPE PROD | 2601 | 2806 | 2821 | 2842 | *20* | *20* | *21* | *20* | 2231 | 2419 | 2489 | 2504 | *25* | *26* | *27* | *27* |
| EXPORTS | 384 | 406 | 456 | 492 | *3* | *3* | *3* | *4* | 232 | 264 | 313 | 337 | *3* | *3* | *3* | *4* |
| TOTAL END USE | 12922 | 13913 | 13527 | 14005 | *100* | *100* | *100* | *100* | 8767 | 9167 | 9285 | 9212 | *100* | *100* | *100* | *100* |

*** FOR 1989, ARTIFICIAL (CELLULOSIC) STAPLE QUANTITIES FOR APPAREL, HOME TEXTILES, FLOOR COVERINGS AND INDUSTRIAL & OTHER CONSUMER-TYPE PRODUCTS WERE PRORATED BASED ON 1988 ACTUAL DATA TO AVOID DISCLOSURE.**

All data are drawn from the U.S. End Use Summary table on page 204.

**NOTE:** Data on Glass Fiber is no longer available due to company disclosure. The series including Glass Fiber was last published in the September 1985 issue.

a. Includes domestic shipments, fiber, yarn, fabric imports and waste.

b. The percentages in these columns show the usage of each type of fiber by its major end use categories. They add to 100% vertically.

# Fiber Organon

A Monthly Review

SEPTEMBER 1990

## CONTENTS

### Features


| | |
|---|---|
| **Manufactured Fiber, Cotton & Wool End Use Survey** | **201, 204 - 216** |
| U.S Fiber Consumption by End Use | 201 |
| U.S. End Use Summary Excluding Glass | 204 |
| End Use Consumption Including Semimanufactured Imports | 205 |
| Manufactured Fiber & Semimanufactured Imports | 206 |
| Exports of Semimanufactured Products | 207 |
| Fiber Consumed in U.S. Production (Including Fiber, Yarn, Fabric Imports & Waste) of: | |
| Apparel | 208 - 209 |
| Home Textiles (Excluding Floor Covering) | 210 - 211 |
| Floor Covering | 211 |
| Industrial & Other Consumer-Type Products | 212 - 213 |
| Notes for End Uses: | 207, 214 - 216 |
| Export Items | 207 |
| General | 214 |
| Apparel Items | 214 |
| Home Textile Items | 215 |
| Floor Covering Items | 215 |
| Industrial & Other Consumer-Type Items | 215 - 216 |


### Industry Regulars


| | |
|---|---|
| **Monthly U.S. Manufactured Fiber Data** | **217 - 219** |
| Imports by Country of Origin | 217 |
| Imports by Fiber | 218 |
| Exports by Fiber | 219 |
| **Selected U.S. Monthly Fiber Data** | **220** |


**FIBER ECONOMICS BUREAU, INC.**
**President & Editor**
*Rosemarie D. Frick*

**Publishing Headquarters:**
Fiber Economics Bureau, Inc.
101 Eisenhower Parkway
Roseland, NJ 07068
U.S.A.
Telephone: (201) 228-1107
Facsimile: (201) 228-7598

ISSN 0040-5132
**Copyright © 1990**
Fiber Economics Bureau, Inc.

**FIBER ORGANON** is published monthly. All rights reserved. This booklet may be reproduced in part if credit is given.

**Subscription Rates**
(payable in U.S. dollars with order):

| ITEM | U.S.A. | OTHER |
|---|---|---|
| Annually (1 year only) | 250.00 | 300.00 |
| Schools & Nonprofit | 150.00 | 300.00 |
| Single Issues: | | |
| May | 100.00 | 150.00 |
| June | 150.00 | 200.00 |
| September | 100.00 | 150.00 |
| December | 100.00 | 150.00 |
| All Others | 50.00 | 75.00 |

Issues are sent by 1st class mail to U.S. subscribers and by airmail to foreign subscribers.

*Continued From Front Page*

## SURVEY COVERAGE

### Table Presentation

End use data are presented by type of fiber, manufactured, cotton and wool; by type of end use product; and by exports of domestic semimanufactured products. All data are in millions of pounds.

**Table 1** shows both total and manufactured fiber consumption by end use for the years 1986, 1987, 1988 and 1989. In addition to the pounds of fiber consumed, the percentage of total end use is reported for five categories: apparel, home textiles, floor coverings, industrial and other consumer-type products and exports.

**Table 2** presents greater fiber and annual detail than Table 1. Percentage distributions are given for both total end use and for individual end uses.

**Tables 6 through 9** give further detail on each of the five end uses reported in Table 2, covering the same five year period 1985-1989. The major change in Tables 6-9 are: Home Textiles Item 51 is now "Curtains & Drapery", and Item 52 is "Upholstery" only (Table 7).

The substantial imports of finished products, such as apparel, blankets, tablecloths and rugs are not included in this survey as they are not manufactured in domestic mills.

### Fibers Covered

The manufactured fiber data are presented in two general categories. Artificial (Cellulosic), which includes rayon and acetate, and Synthetic (Noncellulosic), which includes nylon, polyester, acrylic and olefin. Glass fiber is no longer included. See footnote (b) under General Notes on page 214 for additional descriptions. The cotton end use data cover raw cotton. Cotton waste and cotton linters quantities are excluded, except when pertaining to waste. See the section describing waste fiber coverage for further explanation. Wool data cover both virgin and reprocessed and reused wool.

## SURVEY WASTE FIBER COVERAGE

In the survey, textile fiber waste is handled in three different ways: First, end uses which employ waste fiber, either wholly or in part without preliminary processing are not included (e.g., furniture stuffing, mattress felts, punched or needled felts for carpet & rug underlays, pressed wool felts and some nonwoven fabrics).

Second, for certain end uses which utilize both new fiber and the fiber derived from processed waste, the quantities shown have been calculated so as to exclude the waste component inasmuch as possible.

And third, waste which has been processed into usable spinnable fiber is included in the quantities shown for Blankets (Item 46), Carpets & Rugs (Item 50) and a number of other applications. It is important to note that in products such as these, fiber derived from waste by preliminary processing, especially for the manufactured fiber quantities, is a significant and measured part of the total end use.

## METHODOLOGY

**COTTON:** The cotton series presented in earlier issues were mainly those of the National Cotton Council as published in its annual survey ***"Cotton Counts Its Customers"*** (1989 and earlier editions).

With the 1989 issue we changed the methodology in using the bale opening figure from the Bureau of the Census Report M22P plus imports. ***Cotton Counts Its Customers*** is used as an indicator for the end use distribution.

**WOOL:** The Wool Bureau and government data are employed.

Blends of wool with other fibers are common in many end uses, but little information is available on the fiber composition of these blends. Thus, relatively reliable measures are available mainly on the wool quantities used in Home Textiles (blankets and carpets) and such Apparel items as Craft Yarns.

These quantities were deducted from the Available Supply in Table 3, page 205, and residual quantities were then attributed to Apparel Usage in individual apparel items from the years 1985 - 1989. This was calculated by correlating the data of Census reports MA-23A and MQ-22T on Apparel and Broad Woven Goods, respectively.

**MANUFACTURED FIBERS:** The manufactured fiber data are based on producers' domestic shipments plus imports of fiber, yarn and semimanufactured products.

*Continued on Page 205*

## TABLE 2:
## U.S. END USE SUMMARY EXCLUDING GLASS FIBER
### MILLION POUNDS & *PERCENT*

| END USE & YEAR | GRAND TOTAL | | | COTTON | | | WOOL | | | MANUFACTURED FIBERS | | | MANUFACTURED FIBER DETAIL | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | ARTIFICIAL (CELL.) | | | | | SYNTHETIC (NONCELL.) | | | |
| | | | | | | | | | | | | | TOTAL | | | YARN | STAPLE* | TOTAL | | | YARN | STAPLE |
| | LBS | %[a] | %[b] | LBS | %[a] | %[b] | LBS | %[a] | %[b] | LBS | %[a] | %[b] | LBS | %[a] | %[b] | LBS | LBS | LBS | %[a] | %[b] | LBS | LBS |
| ***APPAREL*** | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 4483 | 100 | 38.2 | 1966 | 43.9 | 58.3 | 142 | 3.2 | 72.4 | 2375 | 52.9 | 29.1 | 208 | 4.6 | 38.3 | 141 | 67 | 2167 | 48.3 | 28.4 | 1086 | 1081 |
| 1986 | 5138 | 100 | 39.8 | 2343 | 45.6 | 59.5 | 158 | 3.1 | 73.5 | 2637 | 51.3 | 30.0 | 257 | 5.0 | 42.4 | 151 | 106 | 2380 | 46.3 | 29.2 | 1004 | 1376 |
| 1987 | 5564 | 100 | 40.0 | 2769 | 49.9 | 61.3 | 157 | 2.8 | 69.5 | 2638 | 47.3 | 28.8 | 236 | 4.2 | 40.2 | 123 | 113 | 2402 | 43.2 | 28.0 | 979 | 1423 |
| 1988 | 5152 | 100 | 38.1 | 2501 | 48.5 | 62.0 | 139 | 2.7 | 66.2 | 2512 | 48.8 | 27.1 | 276 | 5.4 | 45.0 | 143 | 133 | 2236 | 43.4 | 25.8 | 879 | 1357 |
| 1989 | 5515 | 100 | 39.4 | 2892 | 52.4 | 63.1 | 138 | 2.5 | 65.7 | 2485 | 45.1 | 27.0 | 274 | 5.0 | 45.7 | 150 | 124 | 2211 | 40.1 | 25.7 | 890 | 1321 |
| ***HOME TEXTILES*** | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 1895 | 100 | 16.1 | 911 | 48.1 | 27.0 | 18 | 0.9 | 9.2 | 966 | 51.0 | 11.8 | 126 | 6.6 | 23.2 | 19 | 107 | 840 | 44.4 | 11.0 | 293 | 547 |
| 1986 | 2000 | 100 | 15.5 | 1082 | 54.0 | 27.5 | 18 | 0.9 | 8.4 | 900 | 45.1 | 10.3 | 131 | 6.6 | 21.6 | 17 | 114 | 769 | 38.5 | 9.4 | 245 | 524 |
| 1987 | 2162 | 100 | 15.5 | 1232 | 57.0 | 27.3 | 18 | 0.8 | 8.0 | 912 | 42.2 | 9.9 | 139 | 6.4 | 23.7 | 22 | 117 | 773 | 35.8 | 9.0 | 249 | 524 |
| 1988 | 2048 | 100 | 15.1 | 1075 | 52.6 | 26.7 | 19 | 0.9 | 9.0 | 954 | 46.5 | 10.3 | 130 | 6.3 | 21.2 | 21 | 109 | 824 | 40.2 | 9.5 | 271 | 553 |
| 1989 | 2160 | 100 | 15.4 | 1214 | 56.2 | 26.5 | 19 | 0.9 | 9.0 | 927 | 42.9 | 10.1 | 123 | 5.7 | 20.5 | 21 | 102 | 804 | 37.2 | 9.3 | 283 | 521 |
| ***FLOOR COVERINGS*** | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 2565 | 100 | 21.8 | 15 | 0.6 | 0.4 | 12 | 0.5 | 6.1 | 2538 | 98.9 | 31.1 | 1 | 0 | 0.2 | 0 | 1 | 2537 | 98.9 | 33.3 | 1399 | 1138 |
| 1986 | 2799 | 100 | 21.7 | 15 | 0.5 | 0.4 | 17 | 0.6 | 7.9 | 2767 | 98.9 | 31.6 | 2 | 0.1 | 0.3 | 0 | 2 | 2765 | 98.8 | 33.9 | 1535 | 1230 |
| 1987 | 2975 | 100 | 21.4 | 18 | 0.6 | 0.4 | 23 | 0.8 | 10.2 | 2934 | 98.6 | 32.0 | 1 | 0 | 0.2 | 0 | 1 | 2933 | 98.6 | 34.2 | 1614 | 1319 |
| 1988 | 3050 | 100 | 22.5 | 12 | 0.4 | 0.3 | 21 | 0.7 | 10.0 | 3017 | 98.9 | 32.5 | 1 | 0 | 0.2 | 0 | 1 | 3016 | 98.9 | 34.8 | 1647 | 1369 |
| 1989 | 2996 | 100 | 21.4 | 13 | 0.4 | 0.3 | 24 | 0.8 | 11.4 | 2959 | 98.8 | 32.1 | 1 | 0 | 0.2 | 0 | 1 | 2958 | 98.8 | 34.3 | 1660 | 1298 |
| ***INDUSTRIAL & OTHER CONSUMER-TYPE PRODUCTS*** | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 2468 | 100 | 21.0 | 375 | 15.2 | 11.1 | 13 | 0.5 | 6.6 | 2080 | 84.3 | 25.5 | 192 | 7.8 | 35.4 | 30 | 162 | 1888 | 76.5 | 24.8 | 969 | 919 |
| 1986 | 2601 | 100 | 20.1 | 357 | 13.7 | 9.1 | 13 | 0.5 | 6.0 | 2231 | 85.8 | 25.4 | 197 | 7.6 | 32.5 | 28 | 169 | 2034 | 78.2 | 24.9 | 1107 | 927 |
| 1987 | 2806 | 100 | 20.2 | 374 | 13.3 | 8.3 | 13 | 0.5 | 5.8 | 2419 | 86.2 | 26.4 | 189 | 6.7 | 32.2 | 22 | 167 | 2230 | 79.5 | 26.0 | 1185 | 1045 |
| 1988 | 2821 | 100 | 20.9 | 320 | 11.4 | 7.9 | 12 | 0.4 | 5.7 | 2489 | 88.2 | 26.8 | 181 | 6.4 | 29.5 | 21 | 160 | 2308 | 81.8 | 26.6 | 1238 | 1070 |
| 1989 | 2842 | 100 | 20.3 | 329 | 11.6 | 7.2 | 9 | 0.3 | 4.3 | 2504 | 88.1 | 27.2 | 175 | 6.2 | 29.2 | 26 | 149 | 2329 | 81.9 | 27.0 | 1266 | 1063 |
| ***EXPORTS OF DOMESTIC PRODUCTS*** | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 329 | 100 | 2.9 | 108 | 32.8 | 3.2 | 11 | 3.3 | 5.7 | 210 | 63.9 | 2.6 | 16 | 4.9 | 2.9 | 9 | 7 | 194 | 59.0 | 2.5 | 76 | 118 |
| 1986 | 384 | 100 | 2.9 | 143 | 37.3 | 3.5 | 9 | 2.3 | 4.2 | 232 | 60.4 | 2.6 | 19 | 4.9 | 3.1 | 11 | 8 | 213 | 55.5 | 2.6 | 88 | 125 |
| 1987 | 406 | 100 | 2.9 | 127 | 31.3 | 2.8 | 15 | 3.7 | 6.5 | 264 | 65.0 | 2.9 | 22 | 5.4 | 3.7 | 13 | 9 | 242 | 59.6 | 2.8 | 100 | 142 |
| 1988 | 456 | 100 | 3.4 | 124 | 27.2 | 3.1 | 19 | 4.2 | 9.1 | 313 | 68.6 | 3.4 | 25 | 5.5 | 4.1 | 15 | 10 | 288 | 63.1 | 3.3 | 119 | 169 |
| 1989 | 492 | 100 | 3.5 | 135 | 27.4 | 2.9 | 20 | 4.1 | 9.6 | 337 | 68.5 | 3.6 | 27 | 5.5 | 4.4 | 16 | 11 | 310 | 63.0 | 3.7 | 128 | 182 |
| ***TOTAL END USE CONSUMPTION*** | | | | | | | | | | | | | | | | | | | | | | |
| 1985 | 11740 | 100 | 100 | 3375 | 28.7 | 100 | 196 | 1.7 | 100 | 8169 | 69.6 | 100 | 543 | 4.6 | 100 | 199 | 344 | 7626 | 65.0 | 100 | 3823 | 3803 |
| 1986 | 12922 | 100 | 100 | 3940 | 30.4 | 100 | 215 | 1.7 | 100 | 8767 | 67.9 | 100 | 606 | 4.7 | 100 | 207 | 399 | 8161 | 63.2 | 100 | 3979 | 4182 |
| 1987 | 13913 | 100 | 100 | 4520 | 32.6 | 100 | 226 | 1.6 | 100 | 9167 | 65.8 | 100 | 587 | 4.2 | 100 | 180 | 407 | 8580 | 61.7 | 100 | 4127 | 4453 |
| 1988 | 13527 | 100 | 100 | 4032 | 29.8 | 100 | 210 | 1.6 | 100 | 9285 | 68.6 | 100 | 613 | 4.5 | 100 | 200 | 413 | 8672 | 64.1 | 100 | 4154 | 4518 |
| 1989 | 14005 | 100 | 100 | 4583 | 32.7 | 100 | 210 | 1.5 | 100 | 9212 | 65.8 | 100 | 600 | 4.3 | 100 | 213 | 387 | 8612 | 61.5 | 100 | 4227 | 4385 |

*** FOR 1989, ARTIFICIAL (CELLULOSIC) STAPLE QUANTITIES FOR APPAREL, HOME TEXTILES, FLOOR COVERINGS AND INDUSTRIAL & OTHER CONSUMER-TYPE PRODUCTS WERE PRORATED BASED ON 1988 ACTUAL DATA TO AVOID DISCLOSURE.**

NOTE: Data on Glass Fiber are no longer available due to company disclosure. The series including Glass Fiber was last published in the September 1985 issue.

a. The percentages in these columns show the share of each fiber in the specified end use each year. They add horizontally to the 100% shown in each of the Grand Total columns.

b. The percentages in these columns show the usage of each type of fiber by its major end use categories. They add vertically to the 100% shown under Total End Use Consumption.

## TABLE 3:
## END USE CONSUMPTION INCLUDING SEMIMANUFACTURED IMPORTS*
### MILLION POUNDS

| | MANUFACTURED FIBERS | | | | | | | | COTTON | | | WOOL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MILL CONSUMPTION | | | | | | | | | | | | | | | | |
| | ARTIFICAL (CELLULOSIC) | | | SYNTHETIC (NONCELLULOSIC) | | | | | | | | | | | | | |
| YEAR | YARN | STAPLE [b] | TOTAL | YARN | STAPLE [b] | TOTAL | IMPORTS [c] | TOTAL | MILL CONS. [a] | IMPORTS [c] | TOTAL | MILL CONS. [a] | REPRO-CESSED & REUSED [d] | COTTON SYSTEM [d] | IMPORTS [c] | TOTAL | AVAIL-ABLE SUPPLY |
| 1985 | 201.0 | 344.6 | 545.6 | 3663.8 | 3826.1 | 7489.9 | 203.8 | 8239.3 | 2796.0 | 477.5 | 3273.5 | 134.7 | 5.3 | 4.2 | 50.5 | 194.7 | 11707.5 |
| 1986 | 209.1 | 399.2 | 608.3 | 3747.3 | 4098.3 | 7845.6 | 341.3 | 8795.2 | 3301.7 | 638.8 | 3940.5 | 164.5 | 9.5 | 8.5 | 39.6 | 222.1 | 12957.8 |
| 1987 | 179.6 | 406.0 | 585.6 | 3927.1 | 4349.0 | 8276.1 | 303.6 | 9165.3 | 3736.5 | 784.4 | 4520.9 | 167.6 | 7.9 | 6.9 | 44.1 | 226.5 | 13912.7 |
| 1988 | 200.2 | 412.7 | 612.9 | 4045.9 | 4359.1 | 8405.0 | 273.3 | 9291.2 | 3470.1 | 561.9 | 4032.0 | 156.1 | 3.8 | 6.8 | 43.0 | 209.7 | 13532.9 |
| 1989 | 213.6 | 387.3 | 600.9 | 4094.2 | 4314.7 | 8408.9 | *286.4 | 9296.2 | 3937.1 | *646.2 | 4583.3 | 153.9 | 4.5 | 13.8 | *38.0 | 210.2 | 14089.7 |

**NOTE:** Data on Glass Fiber are no longer available due to company disclosure. The series including Glass Fiber was last published in the September 1985 issue.

* Preliminary estimates.

a. Mill Consumption is taken from page 72 of the April 1990 ***Fiber Organon***, plus subsequent revisions.

b. Manufactured staple includes waste.

c. Imports are taken from page 54 of the March 1989 ***Textile Organon.***

d. These volumes of reprocessed and reused wool, as well as wool used on the cotton spinning system, are not included in the mill consumption series for wool.

e. Semimanufactured imports are taken from page 206 of this issue.

*Continued From Page 203*

### UNIT PRODUCTION VERSUS FIBER CONSUMED

This survey shows the quantity of raw fiber which had to be put into process in order to manufacture end products. No direct comparison can be, or should be, made between the quantities of the fibers consumed, as recorded in the survey, and the finished or "shelf" weight of those end products by fiber. Comparison should be avoided because:

1. The variation in the weight per square yard of fabric made of the different fibers for the same end use. According to recent data collected by the U.S. Census Bureau, cotton fabrics averaged 7.0 square yards per pound and wool 0.6 square yards per pound. But for manufactured fiber, 100% filament yarn fabrics averaged 4.4 square yards per pound and spun yarn fabrics averaged 3.3 square yards per pound.

2. From these data, it is apparent that the "covering power" of fabrics made from the various fibers varies a great deal. Hence, a simple comparison of quantities of fibers consumed would be misleading both because of the differences in fibers concerning covering power and the difference in typical fabric weights of products made of the various fibers, as described.

*Continued On Page 210*

## TABLE 4:
## MANUFACTURED FIBER & SEMIMANUFACTURED IMPORTS
**MILLION POUNDS**

| ITEM | 1989 |
|---|---|
| ***ARTIFICIAL (CELLULOSIC) FIBER*** | |
| FILAMENT YARN | |
| HIGH TENACITY | 2.5 |
| TEXTURED | 1.4 |
| OTHER | 21.4 |
| MONOFILAMENTS & STRIPS | 1.0 |
| **SUBTOTAL ABOVE** | **26.3** |
| STAPLE | 53.1 |
| TOW | 0.8 |
| TOPS | 0.1 |
| **SUBTOTAL ABOVE** | **54.0** |
| **WASTE** | **0.6** |
| ***SYNTHETIC (NONCELLULOSIC) FIBERS*** | |
| FILAMENT YARN | |
| NYLON | |
| HIGH TENACITY | 19.5 |
| TEXTURED | |
| UP TO 450 DENIER | 3.5 |
| OVER 450 DENIER | 14.1 |
| OTHER | 47.2 |
| MONOFILAMENTS & STRIPS | 1.3 |
| **SUBTOTAL ABOVE** | **85.6** |
| POLYESTER | |
| HIGH TENACITY | 7.8 |
| TEXTURED | 19.0 |
| POY | 16.3 |
| OTHER | 18.9 |
| MONOFILAMENTS & STRIPS | 0.7 |
| **SUBTOTAL ABOVE** | **82.7** |
| OTHER SYNTHETIC FILAMENT | |
| TEXTURED | 19.2 |
| OTHER | 7.8 |
| MONOFILAMENTS & STRIPS | 0.9 |
| **SUBTOTAL ABOVE** | **33.9** |
| STAPLE | |
| NYLON | 21.7 |
| POLYESTER | 117.7 |
| ACRYLIC | 17.9 |
| POLYPROPYLENE | 2.1 |
| OTHER | 4.4 |
| TOW | |
| NYLON | 4.5 |
| POLYESTER | 0.9 |
| ACRYLIC | 19.6 |
| OTHER | 0.6 |
| TOPS | 3.0 |
| **SUBTOTAL ABOVE** | **192.4** |
| WASTE | |
| NYLON | 24.0 |
| POLYESTER | 17.0 |
| OTHER | 7.0 |
| **TOTAL MANUFACTURED FIBERS ABOVE** | **503.5** |
| ***SEMIMANUFACTURES*** [a] | |
| SLIVER, TOPS & ROVING | 4.6 |
| YARNS, THROWN OR PLIED | 12.7 |
| SPUN YARNS | 48.8 |
| SEWING THREAD | 6.5 |
| WOVEN FABRICS | 186.4 |
| NARROW FABRICS | 15.4 |
| KNIT FABRIC | 12.0 |
| **TOTAL SEMIMANUFACTURES ABOVE** | **286.4** |
| **GRAND TOTAL ABOVE** | **789.9** |

**SOURCES:** U.S. Census Bureau Report IM146; U.S. Department of Agriculture, ***Cotton & Wool Situation and Outlook Report.***

Effective January 1,1989 the U.S. Imports are based on the new Harmonized System (HS). The Harmonized Tariff Schedule of the United States covering artificial (cellulosic) and synthetic (noncellulosic) fibers, Annotated for Statistical Reporting Purposes. **Data for 1989 is not comparable to prior years.** Data for 1984 through 1988 are reported on page 206 of the September 1989 ***Fiber Organon*** issue.
**a.** Preliminary.

## TABLE 5:
## EXPORTS OF SEMIMANUFACTURED PRODUCTS [a]

MILLION POUNDS

| END USE & YEAR | TOTAL FIBER | MANUFACTURED FIBERS[b] TOTAL | ARTIFICIAL (CELL.) YARN | ARTIFICIAL (CELL.) STAPLE | SYNTHETIC (NONCELL.) YARN | SYNTHETIC (NONCELL.) STAPLE | COTTON | WOOL |
|---|---|---|---|---|---|---|---|---|
| ***TOTAL EXPORTS OF SEMIMANUFACTURED PRODUCTS*** | | | | | | | | |
| 1985 | 328.6 | 209.7 | 9.6 | 6.6 | 75.8 | 117.7 | 108.0 | 10.9 |
| 1986 | 383.7 | 232.1 | 11.0 | 7.6 | 88.0 | 125.5 | 143.0 | 8.6 |
| 1987 | 405.6 | 263.8 | 12.5 | 8.6 | 100.3 | 142.4 | 126.9 | 14.9 |
| 1988 | 455.0 | 312.6 | 14.7 | 10.3 | 118.8 | 168.8 | 123.8 | 18.6 |
| 1989 | 492.6 | 337.6 | 15.9 | 11.1 | 128.3 | 182.3 | 134.9 | 20.1 |
| ***80 YARN, THREAD, ETC**** | | | | | | | | |
| 1985 | 86.0 | 50.9 | e | 2.7 | e | 48.4 | 25.8 | 9.3 |
| 1986 | 70.8 | 47.9 | e | 2.5 | e | 45.4 | 16.6 | 6.3 |
| 1987 | 86.2 | 53.9 | e | 2.8 | e | 51.1 | 19.6 | 12.7 |
| 1988 | 110.2 | 66.5 | e | 3.5 | e | 63.0 | 27.2 | 16.5 |
| 1989 | 117.7 | 70.2 | e | 3.8 | e | 66.4 | 29.7 | 17.8 |
| ***81 WOVEN & KNIT FABRIC**** | | | | | | | | |
| 1985 | 242.4 | 158.6 | 9.6 | 3.9 | 75.8 | 69.3 | 82.2 | 1.6 |
| 1986 | 312.9 | 184.2 | 11.0 | 5.1 | 88.0 | 80.1 | 126.4 | 2.3 |
| 1987 | 319.4 | 209.9 | 12.5 | 5.8 | 100.3 | 91.3 | 107.3 | 2.2 |
| 1988 | 344.8 | 246.1 | 14.7 | 6.8 | 118.8 | 105.8 | 96.6 | 2.1 |
| 1989 | 374.9 | 267.4 | 15.9 | 7.3 | 128.3 | 115.9 | 105.2 | 2.3 |

SOURCE: U.S. Department of Agriculture, ***Cotton & Wool Situation and Outlook Report.***

For all lettered and general footnotes to this table, see page 214.

***1989 PRELIMINARY ESTIMATES.***

This is a non-add section since the volumes are included in Tables 2 and 6 through 9.

## NOTES FOR EXPORT ITEMS ABOVE

For all lettered and general footnotes to this table, see page 214.

These exports do not duplicate the end use quantities that are reported in Items 1 through 79. Apparel items are not tabulated here because they already have been counted as the fabric was cut, i.e., they are counted only once regardless of the subsequent place of sale or consumer use.

Similarly, fabrics for blankets, sheets, upholstery & draperies, carpets, etc., are excluded since they are measured at the mill level as an end use.

The exports of manufactured fiber filament yarn+monofilaments, staple, tow, etc., are not tabulated in this section because these products are not a factor in U.S. mill consumption.

On the other hand, the two export items are recorded because, while they were processed or fabricated in U.S. mills, they were exported before reaching the point at which end use is measured.

**80. YARN, THREAD, ETC:**
Consists of sliver, tops & roving; plied and spun yarn; sewing thread and handwork yarns; cotton twine and cordage; and advanced wool.

**81. WOVEN & KNIT FABRIC:**
Consists of broad & narrow woven fabrics and knit cloth, except that cotton also includes table damask and tire cord & fabric.

## TABLE 6:
## FIBER CONSUMED IN U.S. APPAREL PRODUCTION INCLUDING FIBER, YARN, FABRIC IMPORTS & WASTE [a]
### MILLION POUNDS

| END USE & YEAR | TOTAL FIBER | MANUFACTURED FIBERS [b] | | | | | COTTON | WOOL |
|---|---|---|---|---|---|---|---|---|
| | | TOTAL | ARTIFICIAL (CELL.) | | SYNTHETIC (NONCELL.) | | | |
| | | | YARN | STAPLE* | YARN | STAPLE | | |
| ***TOTAL APPAREL*** | | | | | | | | |
| 1985 | 4482.8 | 2374.7 | 140.7 | 66.9 | 1086.5 | 1080.6 | 1966.4 | 141.7 |
| 1986 | r5137.7 | r2636.4 | 150.8 | r105.5 | 1003.7 | 1376.4 | 2342.7 | 158.6 |
| 1987 | r5563.4 | 2637.5 | 123.4 | 112.8 | 978.8 | 1422.5 | r2769.2 | 156.7 |
| 1988 | r5151.8 | 2511.8 | 143.5 | r133.0 | r879.0 | r1356.3 | r2501.2 | r138.8 |
| 1989 | 5514.5 | 2485.4 | 150.1 | 124.1 | 890.2 | 1321.0 | 2891.5 | 137.6 |
| ***40 SHEER HOSIERY (W)**** | | | | | | | | |
| 1985 | 86.4 | 83.0 | -- | -- | 83.0 | -- | 3.4 | -- |
| 1986 | 91.0 | 87.2 | -- | -- | 87.2 | -- | r3.8 | -- |
| 1987 | r95.4 | 91.3 | -- | -- | 91.3 | -- | r4.1 | -- |
| 1988 | r97.7 | 93.8 | -- | -- | 93.8 | -- | r3.9 | -- |
| 1989 | 108.3 | 103.9 | -- | -- | 103.9 | -- | 4.4 | -- |
| ***19,41 ANKLETS & SOCKS (MW)**** | | | | | | | | |
| 1985 | 189.3 | 122.7 | -- | 0.4 | 56.9 | 65.4 | 63.9 | 2.7 |
| 1986 | 210.8 | 127.7 | c | 0.4 | 57.3 | 70.0 | 79.3 | 3.8 |
| 1987 | r224.5 | 112.8 | c | 0.4 | 59.0 | 53.4 | r107.9 | 3.8 |
| 1988 | r216.0 | 106.0 | 0.1 | 0.3 | 58.6 | 47.0 | r106.6 | 3.4 |
| 1989 | 252.8 | 120.7 | c | 0.2 | 77.8 | 42.7 | 128.8 | 3.3 |
| ***8,29 SWEATERS & RELATED ACCESSORIES*** | | | | | | | | |
| 1985 | 186.9 | 110.3 | -- | 1.2 | 0.6 | 108.5 | 59.8 | 16.8 |
| 1986 | 274.9 | r164.0 | -- | 1.5 | 0.4 | 162.1 | 91.9 | 19.0 |
| 1987 | r257.8 | r155.6 | -- | 0.3 | 0.3 | 155.0 | r82.9 | 19.3 |
| 1988 | r214.7 | 140.9 | 0.1 | 0.1 | 0.4 | 140.3 | r58.8 | r15.0 |
| 1989 | 217.7 | 140.0 | -- | 0.1 | 0.1 | 139.8 | 63.1 | 14.6 |
| ***57 CRAFT & HANDWORK YARNS**** | | | | | | | | |
| 1985 | 92.1 | 85.1 | -- | 0.1 | 0.3 | 84.7 | 2.7 | 4.3 |
| 1986 | 91.2 | 82.4 | 1.2 | 0.2 | c | 81.0 | 4.8 | 4.0 |
| 1987 | r80.6 | 72.0 | 0.9 | 0.2 | c | 70.9 | r4.6 | 4.0 |
| 1988 | r74.5 | 67.6 | 1.1 | 0.2 | -- | 66.3 | r3.8 | r3.1 |
| 1989 | 71.5 | 64.9 | 0.9 | 0.2 | -- | 63.8 | 4.4 | 2.2 |
| ***16-18 UNDERWEAR & NIGHTWEAR (M)**** | | | | | | | | |
| 1985 | 264.0 | 83.6 | -- | -- | 8.0 | 75.6 | 179.6 | 0.8 |
| 1986 | 320.8 | 108.8 | -- | -- | 12.5 | 96.3 | 211.8 | 0.2 |
| 1987 | r356.9 | 100.0 | -- | -- | 10.5 | 89.5 | r256.7 | 0.2 |
| 1988 | r337.8 | 84.8 | -- | -- | 8.7 | 76.1 | r252.8 | 0.2 |
| 1989 | 354.9 | 79.7 | -- | -- | 7.6 | 72.1 | 275.0 | 0.2 |
| ***35-39 UNDERWEAR, NIGHTWEAR, BRAS AND FOUNDATIONS (W)**** | | | | | | | | |
| 1985 | 189.9 | 136.7 | 6.8 | -- | 105.2 | 24.7 | 52.4 | 0.8 |
| 1986 | 194.0 | 128.9 | 8.0 | -- | 94.8 | 26.1 | 64.9 | 0.2 |
| 1987 | r204.8 | 123.7 | 1.9 | -- | 92.0 | 29.8 | r80.9 | 0.2 |
| 1988 | r199.6 | 125.2 | 2.9 | -- | 88.3 | 34.0 | r74.2 | 0.2 |
| 1989 | 237.7 | 153.1 | 5.4 | -- | 94.2 | 53.5 | 84.4 | 0.2 |
| ***10,31 ROBES & LOUNGEWEAR (MW)**** | | | | | | | | |
| 1985 | 84.9 | 70.6 | 37.2 | -- | 20.3 | 13.1 | 12.0 | 2.3 |
| 1986 | 93.1 | 73.8 | 31.2 | -- | 23.5 | 19.1 | 17.0 | 2.3 |
| 1987 | r89.9 | 61.7 | 19.7 | -- | 22.9 | 19.1 | r25.9 | 2.3 |
| 1988 | r85.9 | 63.9 | 19.3 | -- | 27.9 | 16.7 | r19.7 | 2.3 |
| 1989 | 97.0 | 72.4 | 16.2 | -- | 35.0 | 21.2 | 22.4 | 2.2 |

## TABLE 6:
## FIBER CONSUMED IN U.S. APPAREL PRODUCTION INCLUDING FIBER, YARN, FABRIC IMPORTS & WASTE [a] (CONTINUED)
MILLION POUNDS

| END USE & YEAR | TOTAL FIBER | MANUFACTURED FIBERS [b] | | | | | COTTON | WOOL |
|---|---|---|---|---|---|---|---|---|
| | | TOTAL | ARTIFICIAL (CELL.) | | SYNTHETIC (NONCELL.) | | | |
| | | | YARN | STAPLE* | YARN | STAPLE | | |
| *54a HIGH PILE FABRICS* | | | | | | | | |
| 1985 | 57.1 | 57.1 | -- | -- | 6.4 | 50.7 | -- | -- |
| 1986 | 59.0 | 59.0 | -- | -- | 10.6 | 48.4 | -- | -- |
| 1987 | 67.9 | 67.9 | -- | 2.0 | 15.4 | 50.5 | -- | -- |
| 1988 | r54.2 | r54.2 | -- | -- | 8.3 | r45.9 | -- | -- |
| 1989 | 54.7 | 54.7 | 4.0 | -- | 8.9 | 41.8 | -- | -- |
| *54b FABRICS FOR LINING** | | | | | | | | |
| 1985 | 146.2 | 103.5 | 74.2 | 1.5 | 17.6 | 10.2 | 40.0 | 2.7 |
| 1986 | 179.3 | 133.9 | 98.3 | 3.6 | 18.5 | 13.5 | 42.6 | 2.8 |
| 1987 | r181.6 | 136.1 | 90.4 | 5.8 | 23.6 | 16.3 | r42.6 | 2.9 |
| 1988 | r176.6 | 139.1 | 104.1 | 6.5 | 18.3 | 10.2 | r34.8 | 2.7 |
| 1989 | 171.9 | 129.9 | 95.7 | 6.1 | 20.8 | 7.3 | 39.5 | 2.5 |
| *43 APPAREL LACE (W)** | | | | | | | | |
| 1985 | 6.1 | 4.6 | -- | -- | 4.6 | -- | 1.5 | -- |
| 1986 | 4.3 | 2.8 | -- | -- | 2.8 | -- | 1.5 | -- |
| 1987 | 3.9 | 2.4 | 0.3 | -- | 2.1 | -- | 1.5 | -- |
| 1988 | 4.6 | 3.1 | -- | -- | 3.1 | -- | 1.5 | -- |
| 1989 | 7.7 | 6.2 | -- | -- | 6.2 | -- | 1.5 | -- |
| *56a NARROW FABRICS** | | | | | | | | |
| 1985 | 46.9 | 23.3 | 1.5 | -- | 20.1 | 1.7 | 23.6 | -- |
| 1986 | 59.9 | 35.1 | 2.1 | -- | 30.1 | 2.9 | 24.8 | -- |
| 1987 | 77.7 | 51.6 | 2.2 | -- | 46.4 | 3.0 | 26.1 | -- |
| 1988 | 78.5 | 51.7 | 2.6 | -- | 46.4 | 2.7 | 26.8 | -- |
| 1989 | 89.3 | 62.4 | 4.3 | -- | 56.2 | 1.9 | 26.9 | -- |
| *TOPWEIGHT FABRICS** | | | | | | | | |
| 1985 | 1040.4 | 496.2 | 16.5 | 35.7 | 173.0 | 271.0 | 540.1 | 4.1 |
| 1986 | r1209.4 | r579.5 | 7.5 | r55.4 | 148.2 | 368.4 | 626.3 | 3.6 |
| 1987 | r1489.8 | 718.7 | 5.6 | 49.3 | 127.5 | 536.3 | r767.4 | 3.7 |
| 1988 | r1452.4 | r724.1 | 5.8 | r55.5 | 130.1 | 532.7 | 724.9 | 3.4 |
| 1989 | 1630.1 | 729.2 | 11.3 | 51.7 | 149.4 | 516.8 | 897.6 | 3.3 |
| *BOTTOMWEIGHT FABRICS** | | | | | | | | |
| 1985 | 2046.8 | 990.8 | 4.5 | 27.8 | 587.5 | 371.0 | 948.8 | 107.2 |
| 1986 | r2294.2 | r1044.7 | 2.5 | r43.9 | 514.4 | r483.9 | 1126.8 | 122.7 |
| 1987 | r2370.2 | r934.9 | 2.4 | 53.3 | 484.5 | r394.7 | r1315.0 | 120.3 |
| 1988 | r2092.2 | r839.2 | 2.5 | r66.9 | r391.5 | 378.3 | r1144.5 | 108.5 |
| 1989 | 2150.6 | 749.9 | 1.3 | 62.4 | 326.6 | 359.6 | 1291.6 | 109.1 |
| *OTHER APPAREL & ACCESSORIES (MW)** | | | | | | | | |
| 1985 | 45.8 | 7.2 | -- | 0.2 | 3.0 | 4.0 | 38.6 | c |
| 1986 | 55.8 | 8.6 | -- | 0.5 | 3.4 | 4.7 | 47.2 | c |
| 1987 | r62.4 | 8.8 | -- | 1.5 | 3.3 | 4.0 | r53.6 | c |
| 1988 | r67.1 | 18.2 | 5.0 | 3.5 | 3.6 | 6.1 | r48.9 | c |
| 1989 | 70.3 | 18.4 | 11.0 | 3.4 | 3.5 | 0.5 | 51.9 | c |

* FOR 1989, ARTIFICIAL (CELLULOSIC) STAPLE QUANTITIES WERE PRORATED BASED ON 1988 ACTUAL DATA TO AVOID DISCLOSURE.

Most of the above data are taken from the Fiber Economics Bureau's publication ***Manufactured Fiber Handbook.***

**NOTE:** Data on Glass Fiber are no longer available due to company disclosure. The series including Glass Fiber was last published in the September 1985 issue.

For all lettered and general footnotes to this table and the Home Textiles, Floor Covering and Industrial & Other Consumer-Type Products tables, please see page 214.

**TABLE 7:**
**FIBER CONSUMED IN U.S. HOME TEXTILES PRODUCTION INCLUDING FIBER, YARN, FABRIC IMPORTS & WASTE EXCLUDING FLOOR COVERINGS[a]**
**MILLION POUNDS**

| END USE & YEAR | TOTAL FIBER | MANUFACTURED FIBERS[b] | | | | | COTTON | WOOL |
|---|---|---|---|---|---|---|---|---|
| | | TOTAL | ARTIFICIAL (CELL.) | | SYNTHETIC (NONCELL.) | | | |
| | | | YARN | STAPLE[a] | YARN | STAPLE | | |
| ***TOTAL HOME TEXTILES*** | | | | | | | | |
| 1985 | 1895.4 | 966.4 | 18.5 | 107.1 | 293.4 | 547.4 | 911.3 | 17.7 |
| 1986 | 1999.7 | 900.0 | 16.8 | 113.9 | 244.9 | 524.4 | 1082.1 | 17.6 |
| 1987 | r2162.3 | 912.3 | 21.8 | 117.2 | 248.8 | 524.5 | r1232.0 | 18.0 |
| 1988 | r2047.7 | r953.8 | 20.8 | 108.8 | 270.6 | r553.6 | r1074.8 | r19.1 |
| 1989 | 2160.5 | 927.1 | 20.9 | 101.5 | 283.2 | 521.5 | 1214.4 | 19.0 |
| ***45 BEDSREADS & QUILTS**** | | | | | | | | |
| 1985 | 134.8 | 77.2 | c | 6.0 | 17.2 | 54.0 | 57.6 | -- |
| 1986 | 146.6 | 80.0 | 0.2 | 6.3 | 19.1 | 54.6 | 66.6 | -- |
| 1987 | r178.8 | 93.8 | -- | 3.3 | 20.5 | 70.0 | r85.0 | -- |
| 1988 | r189.8 | 109.7 | 0.2 | -- | 29.0 | 80.7 | r80.1 | -- |
| 1989 | 156.6 | 72.7 | -- | -- | 21.9 | 50.8 | 83.9 | -- |
| ***46 BLANKETS & BLANKETING**** | | | | | | | | |
| 1985 | 74.8 | 54.6 | -- | 0.2 | -- | 54.4 | 16.1 | 4.1 |
| 1986 | 77.0 | 51.1 | -- | 0.2 | -- | 50.9 | 21.6 | 4.3 |
| 1987 | r80.6 | 51.8 | -- | 0.2 | -- | 51.6 | r24.7 | 4.1 |
| 1988 | r72.9 | r43.5 | -- | 0.2 | -- | r43.3 | r25.2 | r4.2 |
| 1989 | 85.0 | 48.7 | -- | 0.2 | -- | 48.5 | 31.0 | 5.3 |
| ***47 SHEETS & OTHER BEDDING**** | | | | | | | | |
| 1985 | 493.4 | 269.3 | 1.5 | 12.5 | 77.7 | 177.6 | 224.1 | -- |
| 1986 | 520.3 | 254.8 | 1.9 | 12.7 | 70.1 | 170.1 | 265.5 | -- |
| 1987 | r520.2 | 235.2 | 1.5 | 7.2 | 59.7 | 166.8 | r285.0 | -- |
| 1988 | r494.1 | 239.0 | 0.4 | 6.2 | 60.8 | 172.0 | r255.1 | -- |
| 1989 | 513.7 | 228.5 | -- | 5.8 | 48.0 | 174.7 | 285.2 | -- |
| ***48 TOWELS & TOWELING**** | | | | | | | | |
| 1985 | 414.5 | 22.3 | -- | 0.9 | 0.2 | 21.2 | 392.2 | -- |
| 1986 | 500.6 | 31.9 | -- | 0.5 | 0.2 | 31.2 | 468.7 | -- |
| 1987 | r556.4 | 34.2 | -- | 0.1 | 0.5 | 33.6 | r522.2 | -- |
| 1988 | r457.2 | 36.7 | -- | 0.2 | 0.5 | 36.0 | r420.5 | -- |
| 1989 | 505.5 | 26.6 | -- | 0.2 | -- | 26.4 | 478.9 | -- |
| ***56b NARROW FABRICS**** | | | | | | | | |
| 1985 | 4.8 | 1.2 | -- | -- | 1.2 | c | 3.6 | -- |
| 1986 | 4.1 | 0.3 | -- | -- | 0.2 | 0.1 | 3.8 | -- |
| 1987 | 6.2 | 2.2 | -- | -- | 1.7 | 0.5 | 4.0 | -- |
| 1988 | 6.0 | 2.0 | -- | -- | 1.8 | 0.2 | 4.0 | -- |
| 1989 | 7.5 | 3.5 | -- | -- | 0.1 | 3.4 | 4.0 | -- |

*Continued From Page 205*

## LIMITATIONS OF THE SURVEY RESULTS

The statistical results of this end use survey should be considered as approximations. These data are best used as a means of comparison to measure the long-term trends among the fibers.

Please note that the data are given in millions of pounds and include one decimal place to show hundred thousand pounds. This device is employed not to show great accuracy, but rather to take into account some small quantities of fibers in such end uses as Apparel Lace and still allow the compilation to add arithmetically.

## TABLE 7:
## FIBER CONSUMED IN U.S. HOME TEXTILES PRODUCTION INCLUDING FIBER, YARN, FABRIC IMPORTS & WASTE EXCLUDING FLOOR COVERINGS [a] (CONTINUED)
MILLION POUNDS

| END USE & YEAR | TOTAL FIBER | MANUFACTURED FIBERS [b] | | | | | COTTON | WOOL |
|---|---|---|---|---|---|---|---|---|
| | | TOTAL | ARTIFICIAL (CELL.) | | SYNTHETIC (NONCELL.) | | | |
| | | | YARN | STAPLE* | YARN | STAPLE | | |
| *51 CURTAINS & DRAPERY* * | | | | | | | | |
| 1985 | 242.4 | 172.5 | 14.4 | 44.4 | 43.7 | 70.0 | 69.9 | -- |
| 1986 | 277.8 | 190.2 | 14.3 | 48.9 | 45.2 | 81.8 | 87.6 | -- |
| 1987 | r273.8 | 163.1 | 19.7 | 52.2 | 42.5 | 48.7 | r110.7 | -- |
| 1988 | r259.7 | 161.9 | 19.9 | 49.9 | 50.4 | 61.6 | r97.8 | -- |
| 1989 | 292.7 | 170.3 | 17.0 | 46.6 | 60.2 | 63.5 | 122.4 | -- |
| *52 UPHOLSTERY** | | | | | | | | |
| 1985 | 400.8 | 261.3 | 0.4 | 36.7 | 104.6 | 119.6 | 125.9 | 13.6 |
| 1986 | 390.6 | 229.3 | 0.4 | 44.3 | 92.0 | 92.6 | 148.0 | 13.3 |
| 1987 | r464.7 | 269.2 | 0.1 | 53.2 | 93.0 | 122.9 | r181.6 | 13.9 |
| 1988 | r450.1 | 259.8 | -- | 48.7 | 86.3 | 124.8 | r175.4 | r14.9 |
| 1989 | 478.6 | 273.6 | 0.8 | 45.5 | 109.7 | 118.4 | 191.3 | 13.7 |
| *OTHER HOME TEXTILES** | | | | | | | | |
| 1985 | 129.9 | 108.0 | 2.2 | 6.4 | 48.8 | 50.6 | 21.9 | -- |
| 1986 | 82.5 | 62.2 | -- | 1.0 | 18.1 | 43.1 | 20.3 | -- |
| 1987 | r81.6 | 62.8 | 0.5 | 1.0 | 30.9 | 30.4 | r18.8 | -- |
| 1988 | r97.1 | 80.4 | 0.3 | 3.6 | 41.8 | 35.0 | r16.7 | -- |
| 1989 | 100.0 | 82.3 | 3.1 | 3.2 | 43.3 | 35.8 | 17.7 | -- |

## TABLE 8:
## FIBER CONSUMED IN U.S. FLOOR COVERINGS PRODUCTION INCLUDING FIBER, YARN, FABRIC IMPORTS & WASTE [a]
MILLION POUNDS

| END USE & YEAR | TOTAL FIBER | MANUFACTURED FIBERS [b] | | | | | COTTON | WOOL |
|---|---|---|---|---|---|---|---|---|
| | | TOTAL | ARTIFICIAL (CELL.) | | SYNTHETIC (NONCELL.) | | | |
| | | | YARN | STAPLE* | YARN | STAPLE | | |
| *50 TOTAL CARPETS & RUGS** | | | | | | | | |
| 1985 | 2564.7 | 2538.0 | -- | 1.3 | 1398.5 | 1138.2 | 14.8 | 11.9 |
| 1986 | 2799.7 | 2767.0 | -- | 1.5 | 1535.2 | 1230.3 | 15.3 | 17.4 |
| 1987 | r2974.7 | 2933.6 | -- | 0.8 | 1613.7 | 1319.1 | r17.6 | 23.5 |
| 1988 | r3050.2 | r3016.9 | -- | 0.9 | r1646.9 | 1369.1 | r11.7 | 21.6 |
| 1989 | 2996.6 | 2958.8 | -- | 1.1 | 1659.7 | 1298.0 | 13.3 | 24.5 |
| *50a FACE YARNS** | | | | | | | | |
| 1985 | 2134.3 | 2112.2 | -- | 1.3 | 1043.9 | 1067.0 | 10.2 | 11.9 |
| 1986 | 2305.0 | 2277.9 | -- | 1.5 | 1131.1 | 1145.3 | 9.7 | 17.4 |
| 1987 | r2462.0 | 2429.3 | -- | 0.8 | 1188.4 | 1240.1 | r9.2 | 23.5 |
| 1988 | r2525.3 | r2497.7 | -- | 0.9 | r1219.9 | 1276.9 | r6.0 | 21.6 |
| 1989 | 2430.6 | 2399.2 | -- | 1.1 | 1196.3 | 1201.8 | 6.9 | 24.5 |
| *50b BACKING** | | | | | | | | |
| 1985 | 430.4 | 425.8 | -- | -- | 354.6 | 71.2 | 4.6 | -- |
| 1986 | 494.7 | 489.1 | -- | -- | 404.1 | 85.0 | 5.6 | -- |
| 1987 | r512.7 | 504.3 | -- | -- | 425.3 | 79.0 | r8.4 | -- |
| 1988 | r524.9 | 519.2 | -- | -- | 427.0 | 92.2 | r5.7 | -- |
| 1989 | 566.0 | 559.6 | -- | -- | 463.4 | 96.2 | 6.4 | -- |

**FOOTNOTES FOR BOTH TABLE 7 & TABLE 8:**

*** FOR 1989, ARTIFICIAL (CELLULOSIC) STAPLE QUANTITIES WERE PRORATED BASED ON 1988 ACTUAL DATA TO AVOID DISCLOSURE.**

Most of the above data are taken from the Fiber Economic Bureau's publication ***Manufactured Fiber Handbook.***

**NOTE:** Data on Glass Fiber are no longer available due to company disclosure. The series including Glass Fiber was last published in the September 1985 issue.

For all lettered and general footnotes to this table and the Apparel and Industrial & Other Consumer-Type Products tables, please see page 214.